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Superfund Chemical Data Matrix (SCDM)

The Superfund Chemical Data Matrix (SCDM) is a source for factor values and benchmark values applied when evaluating potential National Priorities List (NPL) sites using the Hazard Ranking System (HRS). Factor values are part of the HRS mathematical equation for determining the relative threat posed by a hazardous waste site and reflect hazardous substance characteristics, such as toxicity and persistence in the environment, substance mobility, and potential for bioaccumulation. Benchmarks are environment- or health-based substance concentration limits developed by or used in other EPA regulatory programs. SCDM contains HRS factor values and benchmark values for hazardous substances that are frequently found at sites evaluated using the HRS, as well as the physical, chemical, and radiological data used to calculate those values. The accompanying SCDM Methodology report describes how data are selected or calculated for inclusion in SCDM and how SCDM data, HRS factor values, and benchmarks are presented in formatted printouts.

On January 28, 2004, EPA released an updated SCDM with many revisions to the HRS factor values and benchmarks. These revisions were necessary both because of updates in the SCDM procedures used to assign HRS factor values and benchmarks and because of revisions to pertinent standards and criteria for individual hazardous substances and their associated characteristics.

Disclaimer

The Superfund Chemical Data Matrix (SCDM) is a database containing factor values and benchmark values used for applying the Hazard Ranking System (HRS) [40 CFR Part 300 Appendix A, 55 FR 51583] to evaluate potential National Priorities List (NPL) sites. The physical, chemical, toxicological, and radiological parameters used to calculate the factor values and benchmarks contained in SCDM are obtained from references listed in Chapters 2 and 3 of the SCDM Methodology. The references and the data extracted from them were selected to meet specific HRS requirements and conditions which may not be applicable or representative for other uses. In addition, the parameter values are updated only on an "as needed" basis. As a screening tool, the HRS and SCDM are used for quickly assessing sites at the screening stage and data used to perform this task may not be applicable for other site specific purposes.

The parameter values in SCDM should be used for HRS and NPL purposes only.

You will need Adobe Acrobat Reader to view some of the files on this page.
See [EPA's PDF page](#) to learn more about PDF, and for a link to the free Acrobat Reader.

Superfund Chemical Data Matrix Report

- SCDM Methodology Report PDF
 - [Part 1 - Table of Contents and Introduction \(PDF\) \(5 pp, 283K\)](#)

- [Part 2 - Data Selection Methodology \(PDF\)](#) (22 pp, 1.9MB)
- [Part 3 - Calculations in SCDM \(PDF\)](#) (28 pp, 1.19MB)
- Appendix A - Chemical Data, Factor Values, and Benchmarks for Chemical Substances PDF
 - [Part 1 - Acenaphthene to Cesium \(PDF\)](#) (70 pp, 1.62MB)
 - [Part 2 - Cesium 137\(+D\) \(radionuclide\) to Dichloropropane, 1,2 \(PDF\)](#) (70 pp, 1.7MB)
 - [Part 3 - Dichloropropene, 1,3- to Hexachlorodibenzofuran 1,2,3,7,8,9 \(PDF\)](#) (70 pp, 1.7MB)
 - [Part 4 - Hexachlorodibenzofuran 2,3,4,6,7,8- to Plutonium 236 \(radionuclide\) \(PDF\)](#) (70 pp, 1.6MB)
 - [Part 5 - Plutonium 238 \(radionuclide\) to Thorium 231 \(radionuclide\) \(PDF\)](#) (70 pp, 1.6MB)
 - [Part 6 - Thorium 232 \(radionuclide\) to Zinc 65 \(radionuclide\) and Footnotes \(PDF\)](#) (61 pp, 1.4MB)
- [Appendix BI - Hazardous Substance Factor Values \(PDF\)](#) (15 pp, 156K)
- [Appendix BII - Hazardous Substance Benchmarks \(PDF\)](#) (32 pp, 414K)
- [Appendix C - Hazardous Substance Synonyms Report \(PDF\)](#) (3 pp, 73K)
- SCDM Interim Revised Values for Ammonia; Asbestos; Atrazine; Dibutyltin; Furfural; Nitrobenzene; Nitrosodimethylamine, N-; Perchlorate; Tributyltin; Tributyltin Chloride; Tributyltin Oxide; and Trichloroethylene (TCE)
 - [Ammonia Appendix A \(PDF\)](#) (7 pp, 191K)
 - [Ammonia Appendices BI & BII \(PDF\)](#) (6 pp, 135K)
 - [Asbestos Appendix A \(PDF\)](#) (7 pp, 149K)
 - [Asbestos Appendices BI & BII \(PDF\)](#) (6 pp, 160K)
 - [Atrazine Appendix A \(PDF\)](#) (5 pp, 143K)
 - [Atrazine Appendices BI & BII \(PDF\)](#) (7 pp, 126K)
 - [Dibutyltin Appendix A \(PDF\)](#) (7 pp, 190K)
 - [Dibutyltin Appendices BI & BII \(PDF\)](#) (6 pp, 127K)
 - [Furfural Appendix A \(PDF\)](#) (5 pp, 201K)
 - [Furfural Appendices BI & BII \(PDF\)](#) (1 pg, 65K)
 - [Nitrobenzene Appendix A \(PDF\)](#) (5 pp, 205K)
 - [Nitrobenzene Appendices BI & BII \(PDF\)](#) (1 pg, 51K)
 - [Nitrosodimethylamine, N- Appendix A \(PDF\)](#) (5 pp, 207K)
 - [Nitrosodimethylamine, N- Appendices BI & BII \(PDF\)](#) (6 pp, 138K)
 - [Perchlorate Appendix A \(PDF\)](#) (5 pp, 67K)
 - [Perchlorate Appendices BI & BII \(PDF\)](#) (7 pp, 59K)
 - [Tributyltin Appendix A \(PDF\)](#) (7 pp, 181K)
 - [Tributyltin Appendices BI & BII \(PDF\)](#) (6 pp, 128K)
 - [Tributyltin Chloride Appendix A \(PDF\)](#) (7 pp, 193K)
 - [Tributyltin Chloride Appendices BI & BII \(PDF\)](#) (6 pp, 161K)
 - [Tributyltin Oxide Appendix A \(PDF\)](#) (7 pp, 197K)
 - [Tributyltin Oxide Appendices BI & BII \(PDF\)](#) (6 pp, 129K)
 - [Trichloroethylene \(TCE\) Appendix A \(PDF\)](#) (7 pp, 183K)
 - [Trichloroethylene \(TCE\) Appendices BI & BII \(PDF\)](#) (1 pg, 37K)

Please note that the January 2004 SCDM was developed by compiling a list of CERCLA hazardous substances used in the scoring of NPL sites since 1990. The previous SCDM versions were developed using all substances ever scored at a site using the original HRS. The January 2004 SCDM does not include any substance that has not been used in the scoring of a site since 1990, even if previously listed in SCDM.

There are [17 new entries \(PDF\)](#) (1 pg, 41K) (with new CAS Numbers) in the January 2004 version of SCDM that were not in the 1996 version. There are [235 fewer entries \(PDF\)](#) (5 pp, 58K). Some of these changes resulted from new naming conventions and more specific identification of isomers and congeners. Also, some substances were removed because they were pollutants and contaminants and not CERCLA hazardous substances.

REFERENCE 2**Page 3**

NOTE: Please do not assume that any substance not listed in the January 2004 SCDM cannot be used for HRS scoring. The number of entries was reduced to save resources in developing, updating, and tracking changes in chemical properties. If values are needed for a substance that was not listed in the January 2004 SCDM and are thought to be critical to the listing decision, please request the value by calling the SCDM Helpline. As a preliminary value (for screening purposes only), the former 1996 value associated with the substance can be used, and EPA will verify the new value if necessary. For all technical questions concerning SCDM, please contact the SCDM Helpline.

For SCDM information, contact:

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REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Acenaphthene

CAS Number: 000083-32-9

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	6.0E-2	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.5E+2		
Oral ED10 Wgt:				Density:	1.2E+0	g/mL @ 20.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	5.0E+1	µg/L	ECOTOX				
Salt Ecol LC50:	1.7E+2	µg/L	ECOTOX				

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	1.1E+2	days	THOMAS
Photolysis:	2.5E+0	days	FATERATE
Biodeg:	1.0E+2	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:	1.3E+0	days	THOMAS
Photolysis:	2.5E+0	days	FATERATE
Biodeg:	1.0E+2	days	FATERATE
Radio:		days	
Log Kow:	3.9E+0		CHEMFATE

MOBILITY			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.5E-3	Torr	CHEMFATE
Henry's Law:	1.6E-4	atm-m3/mol	CHEMFATE
Water Solub:	3.6E+0	mg/L	CHEMFATE
Distrib Coef:	1.1E+3	ml/g	DITOR_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	3.9E+2		ECOTOX
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	3.9E+2		ECOTOX
Salt BCF:			
Log Kow:	3.9E+0		CHEMFATE
Water Solub:	3.6E+0	mg/L	CHEMFATE
Geo Mean Sol:			

OTHER DATA			
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Melting Point:	9.3E+1	C
Boiling Point:	2.8E+2	C
Formula:	C12 H10	

CLASS INFORMATION			
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Class Parent Substance

Part 1

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Acenaphthene

CAS Number: 000083-32-9

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
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Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10	Toxicity:	10	Toxicity:	10
Gas Mobility:	0.2000	Water Solub:	3.6E+0		
Gas Migration:	11	Distrib:	1.1E+3		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-4		
		Non Liq. Karst:	2.0E-1		
		Non Karst:	2.0E-5		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10	Toxicity:	10	Fresh Tox:	10000
				Salt Tox:	1000
Persistence		Persistence		Persistence	
River:	0.4000	River:	0.4000	River:	0.4000
Lake:	0.4000	Lake:	0.4000	Lake:	0.4000
		Bioaccumulation		Bioaccumulation	
		Fresh:	500.0	Fresh:	500.0
		Salt:	500.0	Salt:	500.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value
NAAQS/NESHAPS:		µg/m³	MCL/MCLG:		mg/L	Cancer Risk:	
Cancer Risk:		mg/m³	Cancer Risk:		mg/L	Non Cancer Risk:	4.7E+3
Non Cancer Risk:		mg/m³	Non Cancer Risk:	2.2E+0	mg/L		
						MCL:	
						UMTRCA:	
						CANCER RISK	
						Air:	pCi/m³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:	2.2E+0	mg/L	Non Cancer Risk:	8.1E+1	mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Acenaphthylene

CAS Number: 000208-96-8

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.5E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	9.0E-1	g/mL @ 16.00 C	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:		µg/L					
Salt Ecol LC50:		µg/L					

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives				FOOD CHAIN			
Hydrolysis:		days		Fresh BCF:			
Volatility:	1.1E+2	days	THOMAS	Salt BCF:			
Photolysis:		days					
Biodeg:	6.0E+1	days	FATERATE	ENVIRONMENTAL			
Radio:		days		Fresh BCF:			
RIVER - Halflives				Salt BCF:			
Hydrolysis:		days		Log Kow:	4.1E+0		CHEMFATE
Volatility:	1.4E+0	days	THOMAS	Water Solub:	1.6E+1		CHEMFATE
Photolysis:		days		Geo Mean Sol:		mg/L	
Biodeg:	6.0E+1	days	FATERATE				
Radio:		days					
Log Kow:	4.1E+0		CHEMFATE				

CLASS INFORMATION			
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Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Acenaphthylene

CAS Number: 000208-96-8

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	0
Gas Mobility:	0.0200
Gas Migration:	11

Parameter	Value
Toxicity:	0
Water Solub:	1.6E+1
Distrib:	1.5E+3
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	2.0E-1
Non Karst:	2.0E-5

Parameter	Value
Toxicity:	0

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	0

Parameter	Value
Toxicity:	0
Persistence	
River:	0.4000
Lake:	1.0000
Bioaccumulation	
Fresh:	500.0
Salt:	500.0

Parameter	Value
Fresh Tox:	0
Salt Tox:	0
Persistence	
River:	0.4000
Lake:	1.0000
Bioaccumulation	
Fresh:	500.0
Salt:	500.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m ³
Cancer Risk:		mg/m ³
Non Cancer Risk:		mg/m ³

Parameter	Value	Unit
MCL/MCLG:		mg/L
Cancer Risk:		mg/L
Non Cancer Risk:		mg/L

Parameter	Value	Unit
Cancer Risk:		mg/L
Non Cancer Risk:		mg/L

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m ³
DW:		pCi/L
PC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit
MCL/MCLG:		mg/L
Cancer Risk:		mg/L
Non Cancer Risk:		mg/L

Parameter	Value	Unit
FDAAL:		ppm
Cancer Risk:		mg/kg
Non Cancer Risk:		mg/kg

Parameter	Value	Unit
ACUTE		
Fresh CMC:		µg/L
Salt CMC:		µg/L

CHRONIC		
Fresh CCC:		µg/L
Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Acetone

CAS Number: 000067-64-1

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	9.0E-1	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Inhal Wt-of-Evid:			
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	5.3E+3	mg/kg	ACGIH
Dermal LD50:	2.0E+4	mg/kg	ACGIH
Gas Inhal LC50:		ppm	
Dust Inhal LC50:	3.7E+1	mg/L	RTECS
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.0E+4	µg/L	ECOTOX
Salt Ecol LC50:	1.9E+6	µg/L	ECOTOX

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>
Metal Contain:	No
Organic:	Yes
Gas:	Yes
Particulate:	No
Radionuclide:	No
Rad. Element:	No
Molecular Weight:	5.8E+1
Density:	7.9E-1 g/mL @ 20.00 C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.3E+2	Torr	CHEMFATE
Henry's Law:	3.9E-5	atm-m ³ /mol	CHEMFATE
Water Solub:	1.0E+6	mg/L	CHEMFATE
Distrib Coef:	8.7E-2	ml/g	DITOR_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:	-2.4E-1	CHEMFATE
Salt BCF:	1.0E+6	CHEMFATE
Log Kow:		mg/L
Water Solub:		
Geo Mean Sol:		

OTHER DATA

Melting Point:	-9.5E+1	C
Boiling Point:	5.6E+1	C
Formula:	C ₃ H ₆ O	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	1.2E+0	days	THOMAS
Photolysis:	5.7E-1	days	CHEMFATE
Biodeg:	7.0E+0	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:	1.2E+0	days	THOMAS
Photolysis:	5.7E-1	days	CHEMFATE
Biodeg:	7.0E+0	days	FATERATE
Radio:		days	
Log Kow:	-2.4E-1		CHEMFATE

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Acetone

CAS Number: 000067-64-1

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter	Value
Toxicity:	1
Gas Mobility:	1.0000
Gas Migration:	17

GROUND WATER PATHWAY

Parameter	Value
Toxicity:	1
Water Solub:	1.0E+6
Distrib:	8.7E-2
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E+0

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	1

SURFACE WATER PATHWAY

DRINKING WATER

Parameter	Value
Toxicity:	1

HUMAN FOOD CHAIN

Parameter	Value
Toxicity:	1

ENVIRONMENTAL

Parameter	Value
Fresh Tox:	100
Salt Tox:	1

Persistence	
River:	0.0700
Lake:	0.0700

Persistence	
River:	0.0700
Lake:	0.0700

Persistence	
River:	0.0700
Lake:	0.0700

Bioaccumulation	
Fresh:	0.5
Salt:	0.5

Bioaccumulation	
Fresh:	0.5
Salt:	0.5

BENCHMARKS

AIR PATHWAY

Parameter	Value	Unit
NAAQS/NESHAPS:		$\mu\text{g}/\text{m}^3$
Cancer Risk:		mg/m ³
Non Cancer Risk:		mg/m ³

GROUND WATER PATHWAY

Parameter	Value	Unit
MCL/MCLG:		mg/L
Cancer Risk:		mg/L
Non Cancer Risk:	3.3E+1	mg/L

SOIL EXPOSURE PATHWAY

Parameter	Value	Unit
Cancer Risk:		mg/kg
Non Cancer Risk:	7.0E+4	mg/kg

RADIONUCLIDE

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m ³
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter	Value	Unit
MCL/MCLG:		mg/L
Cancer Risk:		mg/L
Non Cancer Risk:	3.3E+1	mg/L

HUMAN FOOD CHAIN

Parameter	Value	Unit
FDAAL:		ppm
Cancer Risk:		mg/kg
Non Cancer Risk:	1.2E+3	mg/kg

ENVIRONMENTAL

Parameter	Value	Unit
ACUTE		
Fresh CMC:		$\mu\text{g}/\text{L}$
Salt CMC:		$\mu\text{g}/\text{L}$
CHRONIC		
Fresh CCC:		$\mu\text{g}/\text{L}$
Salt CCC:		$\mu\text{g}/\text{L}$

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Acrolein

CAS Number: 000107-02-8

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	5.0E-4	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:	5.7E-6	mg/kg/day	IRIS	Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	No		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	5.6E+1		
Oral ED10 Wgt:				Density:	8.4E-1	g/mL @ 20.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	4.6E+1	mg/kg	ACGIH				
Dermal LD50:	5.6E+2	mg/kg	ACGIH				
Gas Inhal LC50:	6.6E+1	ppm	RTECS				
Dust Inhal LC50:	1.5E+1	mg/L	RTECS				
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	6.0E+0	µg/L	ECOTOX				
Salt Ecol LC50:	2.7E+2	µg/L	ECOTOX				
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		Vapor Press:	2.7E+2	Torr	CHEMFATE
Volatility:	5.0E-1	days	THOMAS	Henry's Law:	1.2E-4	atm-m3/mol	CHEMFATE
Photolysis:		days		Water Solub:	2.1E+5	mg/L	CHEMFATE
Biodeg:	2.8E+1	days	FATERATE	Distrib Coef:	1.5E-1	ml/g	DITOR_KD
Radio:		days		Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	5.0E-1	days	THOMAS	Log Kow:	-1.0E-2		CHEMFATE
Photolysis:		days		Water Solub:	2.1E+5		CHEMFATE
Biodeg:	2.8E+1	days	FATERATE	Geo Mean Sol:		mg/L	
Radio:		days					
Log Kow:	-1.0E-2		CHEMFATE				
CLASS INFORMATION				BIOACCUMULATION			
Class	Parent Substance			Parameter	Value	Unit	Source
				FOOD CHAIN			
				Fresh BCF:	3.4E+2		ECOTOX
				Salt BCF:			
ENVIRONMENTAL							
				Fresh BCF:	3.4E+2		ECOTOX
				Salt BCF:			
				Log Kow:	-1.0E-2		CHEMFATE
				Water Solub:	2.1E+5		CHEMFATE
				Geo Mean Sol:		mg/L	
OTHER DATA				Melting Point:	-8.8E+1	C	
				Boiling Point:	5.3E+1	C	
				Formula:	C3 H4 O		

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Acrolein

CAS Number: 000107-02-8

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:	1.0000	Water Solub:	2.1E+5		
Gas Migration:	17	Distrib:	1.5E-1		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	10000
				Salt Tox:	1000
Persistence		Persistence		Persistence	
River:	0.0700	River:	0.0700	River:	0.0700
Lake:	0.0700	Lake:	0.0700	Lake:	0.0700
		Bioaccumulation		Bioaccumulation	
		Fresh:	500.0	Fresh:	500.0
		Salt:	500.0	Salt:	500.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
Cancer Risk:		mg/m ³	Cancer Risk:		mg/L	Non Cancer Risk:	3.9E+1	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:	2.1E-5	mg/m ³	Non Cancer Risk:	1.8E-2	mg/L				CANCER RISK		
									Air:		pCi/m ³
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:	1.8E-2	mg/L	Non Cancer Risk:	6.8E-1	mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Acrylamide

CAS Number: 000079-06-1

TOXICITY				PHYSICAL CHARACTERISTICS			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>		
Oral RfD:	2.0E-4	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	4.5E+0	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:	4.5E+0	(mg/kg/day)^-1	IRIS	Radiouclide:	No		
Inhal Wt-of-Evid:	B2			Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	7.1E+1		
Oral ED10 Wgt:				Density:	1.1E+0	g/mL @ 30.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	1.5E+2	mg/kg	ACGIH				
Dermal LD50:	4.0E+2	mg/kg	RTECS				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	4.0E+4	µg/L	ECOTOX				
Salt Ecol LC50:	2.4E+4	µg/L	ECOTOX				
PERSISTENCE				MOBILITY			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives							
Hydrolysis:	1.4E+4	days	CHEMFATE	Vapor Press:	7.0E-3	Torr	CHEMFATE
Volatility:		days		Henry's Law:	1.0E-9	atm-m ³ /mol	CHEMFATE
Photolysis:		days		Water Solub:	6.4E+5	mg/L	CHEMFATE
Biodeg:		days		Distrib Coef:	3.3E-2	mL/g	DITOR_KD
Radio:		days		Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:	1.4E+4	days	CHEMFATE				
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:		days					
Log Kow:	-6.7E-1		CHEMFATE				
CLASS INFORMATION				BIOACCUMULATION			
		<u>Class</u>			<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
					FOOD CHAIN		Source
					Fresh BCF:	1.6E+0	
					Salt BCF:		ECOTOX
ENVIRONMENTAL							
					Fresh BCF:	1.6E+0	
					Salt BCF:		ECOTOX
					Log Kow:	-6.7E-1	CHEMFATE
					Water Solub:	6.4E+5	CHEMFATE
					Geo Mean Sol:		mg/L
OTHER DATA							
					Melting Point:	8.5E+1	C
					Boiling Point:	1.9E+2	C
					Formula:	C ₃ H ₅ N O	

CLASS INFORMATION

Class Parent Substance

REFERENCE 2.

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Acrylamide

CAS Number: 000079-06-1

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Gas Mobility:	0.2000
Gas Migration:	6

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Water Solub:	6.4E+5
Distrib:	3.3E-2
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E+0

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	10
Salt Tox:	10

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	5.0
Salt:	5.0

Bioaccumulation	
Fresh:	5.0
Salt:	5.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		$\mu\text{g}/\text{m}^3$
Cancer Risk:	1.9E-6	mg/m^3
Non Cancer Risk:		mg/m^3

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		MCL/MCLG:
Cancer Risk:	1.9E-5	Cancer Risk:
Non Cancer Risk:	7.3E-3	Non Cancer Risk:

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Cancer Risk:	7.0E-4	mg/L
Non Cancer Risk:	2.7E-1	mg/L

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Cancer Risk:	1.4E-1	mg/kg
Non Cancer Risk:	1.6E+1	mg/kg

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL:		MCL:
UMTRCA:		UMTRCA:
CANCER RISK		CANCER RISK

Air:	pCi/m^3
DW:	pCi/L
FC:	pCi/kg
Soil Ing:	pCi/kg
Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L
Cancer Risk:	1.9E-5	mg/L

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
FDAAL:		ppm
Cancer Risk:	7.0E-4	mg/kg

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Non Cancer Risk:	2.7E-1	mg/kg

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
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ACUTE	
Fresh CMC:	
Salt CMC:	

CHRONIC	
Fresh CCC:	
Salt CCC:	

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Alachlor

CAS Number: 015972-60-8

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.0E-2	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	8.0E-2	(mg/kg/day)^-1	HEAST	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radiouclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	2.7E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	1.1E+0	g/mL @ 25.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:	9.3E+2	mg/kg	RTECS				
Dermal LD50:	1.2E+4	mg/kg	RTECS				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:	1.9E+5	mg/L	RTECS				
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	1.5E+2	µg/L	ECOTOX				
Salt Ecol LC50:		µg/L					

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	3.5E+0		PHYSPROP

MOBILITY			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.2E-5	Torr	PHYSPROP
Henry's Law:	8.3E-9	atm-m ³ /mol	PHYSPROP
Water Solub:	2.4E+2	mg/L	PHYSPROP
Distrib Coef:	4.4E+2	ml/g	DITOR_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:	5.0E+1	ECOTOX
Salt BCF:		
Log Kow:	3.5E+0	PHYSPROP
Water Solub:	2.4E+2	PHYSPROP
Geo Mean Sol:	mg/L	

OTHER DATA			
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Melting Point:	4.0E+1	C
Boiling Point:	1.0E+2	C
Formula:	C14 H20 Cl N O2	

CLASS INFORMATION			
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Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Alachlor

CAS Number: 015972-60-8

ASSIGNED FACTOR VALUES

AIR PATHWAY	GROUND WATER PATHWAY	SOIL EXPOSURE PATHWAY
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Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	100	Toxicity:	100	Toxicity:	100
Gas Mobility:	0.0200	Water Solub:	2.4E+2		
Gas Migration:	6	Distrib:	4.4E+2		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-2		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E-2		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	100	Toxicity:	100	Fresh Tox:	1000
				Salt Tox:	1000
Persistence		Persistence		Persistence	
River:	0.4000	River:	0.4000	River:	0.4000
Lake:	0.0700	Lake:	0.0700	Lake:	0.0700
		Bioaccumulation		Bioaccumulation	
		Fresh:	500.0	Fresh:	50.0
		Salt:	500.0	Salt:	50.0

BENCHMARKS

AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m³	MCL/MCLG:	2.0E-3	mg/L	Cancer Risk:	8.0E+0	mg/kg	MCL:		pCi/L
Cancer Risk:		mg/m³	Cancer Risk:	1.1E-3	mg/L	Non Cancer Risk:	7.8E+2	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m³	Non Cancer Risk:	3.6E-1	mg/L				CANCER RISK		
									Air:		pCi/m³
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:	2.0E-3	mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:	1.1E-3	mg/L	Cancer Risk:	3.9E-2	mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:	3.6E-1	mg/L	Non Cancer Risk:	1.4E+1	mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Aldrin

CAS Number: 000309-00-2

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	3.0E-5	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	1.7E+1	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:	1.7E+1	(mg/kg/day)^-1	IRIS	Radionuclide:	No		
Inhal Wt-of-Evid:	B2			Rad. Element:	No		
Oral ED10:	4.2E-3	mg/kg/day	EPA_ED10	Molecular Weight:	3.6E+2		
Oral ED10 Wgt:	B2			Density:		g/mL @	C
Inhal ED10:	4.2E-3	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	B2						
Oral LD50:	6.0E+1	mg/kg	ACGIH				
Dermal LD50:	3.9E+1	mg/kg	ACGIH				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:	4.8E+0	mg/L	RTECS				
ACUTE							
Fresh CMC:	3.0E+0	G	μg/L	WATCRIT			
Salt CMC:	1.3E+0	G	μg/L	WATCRIT			
CHRONIC							
Fresh CCC:		μg/L					
Salt CCC:		μg/L					
Fresh Ecol LC50:	9.7E-2	μg/L	ECOTOX				
Salt Ecol LC50:	5.1E-1	μg/L	ECOTOX				
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:	7.6E+2	days	CHEMFATE	Vapor Press:	6.0E-6	Torr	CHEMFATE
Volatility:	1.7E+2	days	THOMAS	Henry's Law:	1.7E-4	atm-m3/mol	CHEMFATE
Photolysis:		days		Water Solub:	1.7E-2	mg/L	CHEMFATE
Biodeg:	5.9E+2	days	FATERATE	Distrib Coef:	3.7E+5	ml/g	DITOR_KD
Radio:		days		Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:	7.6E+2	days	CHEMFATE				
Volatility:	2.9E+0	days	THOMAS				
Photolysis:		days					
Biodeg:	5.9E+2	days	FATERATE				
Radio:		days					
Log Kow:	5.5E+0		CHEMFATE				
CLASS INFORMATION							
Class	Parent Substance						

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
Chemical: Aldrin

CAS Number: 000309-00-2

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	10000
Gas Mobility:	0.0020
Gas Migration:	6

Parameter	Value
Toxicity:	10000
Water Solub:	1.7E-2
Distrib:	3.7E+5
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	2.0E-3
Non Karst:	2.0E-7

Parameter	Value
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	10000

Parameter	Value
Toxicity:	10000

Parameter	Value
Fresh Tox:	10000
Salt Tox:	10000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	5000.0
Salt:	50000.0

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter	Value	Unit
NAAQS/NESHAPS:		$\mu\text{g}/\text{m}^3$
Cancer Risk:	5.0E-7	mg/m^3
Non Cancer Risk:		mg/m^3

Parameter	Value	Unit
MCL/MCLG:		mg/L
Cancer Risk:	5.0E-6	mg/L
Non Cancer Risk:	1.1E-3	mg/L

Parameter	Value	Unit
Cancer Risk:	3.8E-2	mg/kg
Non Cancer Risk:	2.3E+0	mg/kg

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m^3
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit
MCL/MCLG:		mg/L
Cancer Risk:	5.0E-6	mg/L
Non Cancer Risk:	1.1E-3	mg/L

Parameter	Value	Unit
FDAAL:	3.0E-1	ppm
Cancer Risk:	1.9E-4	mg/kg
Non Cancer Risk:	4.1E-2	mg/kg

Parameter	Value	Unit
ACUTE		
Fresh CMC:	3.0E+0 G	$\mu\text{g}/\text{L}$
Salt CMC:	1.3E+0 G	$\mu\text{g}/\text{L}$

CHRONIC

Fresh CCC:		$\mu\text{g}/\text{L}$
Salt CCC:		$\mu\text{g}/\text{L}$

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Aluminum

CAS Number: 007429-90-5

TOXICITY			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Inhal Wt-of-Evid:			
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:	7.5E+2	G2, I2	WATCRIT
Salt CMC:		μg/L	
CHRONIC			
Fresh CCC:	8.7E+1	G2, I2, L2	WATCRIT
Salt CCC:		μg/L	
Fresh Ecol LC50:	1.2E+2	μg/L	ECOTOX
Salt Ecol LC50:		μg/L	

PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>
Metal Contain:	Yes
Organic:	No
Gas:	No
Particulate:	Yes
Radiouclide:	No
Rad. Element:	No
Molecular Weight:	2.7E+1
Density:	2.7E+0 g/mL @ C

MOBILITY			
----------	--	--	--

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m ³ /mol	
Water Solub:		mg/L	
Distrib Coef:	9.9E+0	ml/g	DITOR_KD
Geo Mean Sol:	9.5E+4	mg/L	CALC

BIOACCUMULATION			
-----------------	--	--	--

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	3.6E+1		ECOTOX
Salt BCF:			

ENVIRONMENTAL			
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Fresh BCF:	6.6E+3		ECOTOX
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:	9.5E+4	mg/L	CALC

OTHER DATA			
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Melting Point:	6.6E+2	C
Boiling Point:	2.5E+3	C
Formula:	Al	

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	

Log Kow:

CLASS INFORMATION			
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Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Aluminum

CAS Number: 007429-90-5

ASSIGNED FACTOR VALUES

AIR PATHWAY

<u>Parameter</u>	<u>Value</u>
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Toxicity: 0
 Gas Mobility:
 Gas Migration:

GROUND WATER PATHWAY

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity: 0
 Water Solub:
 Distrib: 9.9E+0
 Geo Mean Sol: 9.5E+4
 Mobility:
 Liquid Karst: 1.0E+0
 Non Karst: 1.0E+0
 Non Liq. Karst: 1.0E+0
 Non Karst: 1.0E+0

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity: 0

SURFACE WATER PATHWAY

DRINKING WATER

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity: 0
 Persistence
 River: 1.0000
 Lake: 1.0000

HUMAN FOOD CHAIN

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity: 0
 Persistence
 River: 1.0000
 Lake: 1.0000
 Bioaccumulation
 Fresh: 50.0
 Salt: 50.0

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Fresh Tox: 100
 Salt Tox: 100
 Persistence
 River: 1.0000
 Lake: 1.0000
 Bioaccumulation
 Fresh: 5000.0
 Salt: 5000.0

BENCHMARKS

AIR PATHWAY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
------------------	--------------	-------------

NAAQS/NESHAPS: µg/m³
 Cancer Risk: mg/m³
 Non Cancer Risk: mg/m³

GROUND WATER PATHWAY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
------------------	--------------	-------------

MCL/MCLG:
 Cancer Risk:
 Non Cancer Risk:

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
------------------	--------------	-------------

mg/kg
 MCL:
 UMTRCA:
 CANCER RISK

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
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Air: pCi/m³
 DW: pCi/L
 FC: pCi/kg
 Soil Ing: pCi/kg
 Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
------------------	--------------	-------------

MCL/MCLG: mg/L
 Cancer Risk: mg/L
 Non Cancer Risk: mg/L

HUMAN FOOD CHAIN

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
------------------	--------------	-------------

FDAAL:
 Cancer Risk:
 Non Cancer Risk:

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
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ACUTE
 Fresh CMC: 7.5E+2 G₂, L₂
 Salt CMC:

Unit

µg/L
 µg/L

CHRONIC
 Fresh CCC: 8.7E+1 G₂, L₂
 Salt CCC:

µg/L
 µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
Chemical: Americium

CAS Number: 007440-35-9

TOXICITY				PHYSICAL CHARACTERISTICS			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:				Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:				Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	Yes		
Oral ED10:		mg/kg/day		Molecular Weight:	2.4E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	1.2E+1	g/mL @	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L		Vapor Press:		Torr	
Salt CMC:		µg/L		Henry's Law:		atm-m3/mol	
CHRONIC							
Fresh CCC:		µg/L		Water Solub:		mg/L	
Salt CCC:		µg/L		Distrib Coef:	8.2E+0	ml/g	
Fresh Ecol LC50:		µg/L		Geo Mean Sol:		mg/L	
Salt Ecol LC50:		µg/L					
PERSISTENCE							
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives							
Hydrolysis:		days		FOOD CHAIN			
Volatility:		days		Fresh BCF:			
Photolysis:		days		Salt BCF:			
Biodeg:		days					
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days		ENVIRONMENTAL			
Volatility:		days		Fresh BCF:			
Photolysis:		days		Salt BCF:			
Biodeg:		days					
Radio:		days		Log Kow:			
				Water Solub:			
				Geo Mean Sol:		mg/L	
OTHER DATA							
Melting Point:	1.2E+3					C	
Boiling Point:	2.0E+3					C	
Formula:	Am						

CLASS INFORMATION

Class **Parent Substance**

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
Chemical: Americium

CAS Number: 007440-35-9

HRS factor values are assigned to radioactive isotopes but not to radioactive elements. Data for a radioactive element is used to derive factor values for that element's isotopes.

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Americium 241

CAS Number: 014596-10-2

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>		
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:	Food: 1.34E-10 Soil: 2.17E-10 Water: 1.04E-10	(pCi)^-1	HEAST	Gas:	No		
Oral Wt-of-Evid:	A	(pCi)^-1	HEAST	Particulate:	Yes		
Inhal Slope:	2.8E-8	(pCi)^-1	HEAST	Radionuclide:	Yes		
Inhal Wt-of-Evid:	A			Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	2.4E+2		
Oral ED10 Wgt:				Density:	@		
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:		µg/L					
Salt Ecol LC50:		µg/L					

PERSISTENCE				MOBILITY			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives				Vapor Press:		Torr	
Hydrolysis:		days		Henry's Law:		atm-m ³ /mol	
Volatility:		days		Water Solub:		mg/L	
Photolysis:		days		Distrib Coef:	6.8E+2	mL/g	BAES_KD
Biodeg:		days		Geo Mean Sol:		mg/L	
Radio:	1.6E+5	days	SSG-Rad				
RIVER - Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:	1.6E+5	days	SSG-Rad				

Log Kow:

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

PERSISTENCE				BIOACCUMULATION			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
OTHER DATA			
Melting Point:			
Boiling Point:			
Formula:	Am-241		

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
CLASS INFORMATION			
Class			
Parent Substance			

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Americium 241

CAS Number: 014596-10-2

ASSIGNED FACTOR VALUES

AIR PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Gas Mobility:	
Gas Migration:	

GROUND WATER PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Water Solub:	
Distrib:	6.8E+2
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	
Non Karst:	

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

HUMAN FOOD CHAIN

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	10000
Salt Tox:	10000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	0.5
Salt:	0.5

Bioaccumulation	
Fresh:	0.5
Salt:	0.5

BENCHMARKS

AIR PATHWAY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		µg/m ³
Cancer Risk:		mg/m ³
Non Cancer Risk:		mg/m ³

GROUND WATER PATHWAY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L
Cancer Risk:		mg/L
Non Cancer Risk:		mg/L

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL:	1.5E+1	pCi/L
UMTRCA:		pCi/kg

RADIOMUCLIDE

CANCER RISK		
Air:	1.7E-4	pCi/m ³
DW:	4.6E-1	pCi/L
FC:	1.3E+1	pCi/kg
Soil Ing:	3.7E+3	pCi/kg
Soil Garm:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L
Cancer Risk:		mg/L
Non Cancer Risk:		mg/L

HUMAN FOOD CHAIN

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
FDAAL:		ppm
Cancer Risk:		mg/kg
Non Cancer Risk:		mg/kg

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:		µg/L
Salt CMC:		µg/L
CHRONIC		
Fresh CCC:		µg/L
Salt CCC:		µg/L

REFERENCE 2

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Date: 1/28/2004
Chemical: Aniline

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000062-53-3

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:	2.9E-4	mg/kg/day	IRIS	Organic:	Yes		
Oral Slope:	5.7E-3	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	No		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	9.3E+1		
Oral ED10 Wgt:				Density:	1.0E+0	g/mL @ 20.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	4.4E+2	mg/kg	ACGIH	MOBILITY			
Dermal LD50:	8.4E+2	mg/kg	RTECS	Parameter	Value	Unit	Source
Gas Inhal LC50:	1.8E+2	ppm	RTECS	Vapor Press:	4.9E-1	Torr	CHEMFATE
Dust Inhal LC50:		mg/L		Henry's Law:	1.9E-6	atm-m3/mol	CHEMFATE
ACUTE				Water Solub:	3.6E+4	mg/L	CHEMFATE
Fresh CMC:		µg/L		Distrib Coef:	1.2E+0	ml/g	DITOR_KD
Salt CMC:		µg/L		Geo Mean Sol:		mg/L	
CHRONIC				BIOACCUMULATION			
Fresh CCC:		µg/L		Parameter	Value	Unit	Source
Salt CCC:		µg/L		FOOD CHAIN			
Fresh Ecol LC50:	2.5E+1	µg/L	ECOTOX	Fresh BCF:	2.0E+1		ECOTOX
Salt Ecol LC50:	2.9E+4	µg/L	ECOTOX	Salt BCF:			
PERSISTENCE				ENVIRONMENTAL			
Parameter	Value	Unit	Source	Fresh BCF:	2.8E+2		ECOTOX
LAKE - Halflives				Salt BCF:			
Hydrolysis:		days		Log Kow:			
Volatility:	9.7E+1	days	THOMAS	Water Solub:	3.6E+4		CHEMFATE
Photolysis:	2.6E+0	days	CHEMFATE	Geo Mean Sol:		mg/L	CHEMFATE
Biodeg:		days					
Radio:		days		OTHER DATA			
RIVER - Halflives				Melting Point:	-6.0E+0	C	
Hydrolysis:		days		Boiling Point:	1.8E+2	C	
Volatility:	1.3E+1	days	THOMAS	Formula:	C6H7N		
Photolysis:	2.6E+0	days	CHEMFATE				
Biodeg:		days					
Radio:		days					
Log Kow:	9.0E-1		CHEMFATE				

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Aniline

CAS Number: 000062-53-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Gas Mobility:	1.0000
Gas Migration:	11

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Water Solub:	3.6E+4
Distrib:	1.2E+0
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E+0

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	10000
Salt Tox:	10

Persistence	
River:	1.0000
Lake:	0.4000

Persistence	
River:	1.0000
Lake:	0.4000

Persistence	
River:	1.0000
Lake:	0.4000

Bioaccumulation	
Fresh:	50.0
Salt:	50.0

Bioaccumulation	
Fresh:	500.0
Salt:	500.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		
Cancer Risk:		
Non Cancer Risk:	1.0E-3	mg/m3

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		
Cancer Risk:	1.5E-2	mg/m3
Non Cancer Risk:		

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Cancer Risk:	1.1E+2	mg/L
Non Cancer Risk:		mg/L

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m3
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L
Cancer Risk:	1.5E-2	mg/L
Non Cancer Risk:		mg/L

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
FDAAL:		ppm
Cancer Risk:	5.5E-1	mg/kg
Non Cancer Risk:		mg/kg

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:		µg/L
Salt CMC:		µg/L

CHRONIC	
Fresh CCC:	
Salt CCC:	

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Anthracene

CAS Number: 000120-12-7

TOXICITY				PHYSICAL CHARACTERISTICS			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>		
Oral RfD:	3.0E-1	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.8E+2		
Oral ED10 Wgt:				Density:	1.3E+0	g/mL @ 25.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		μg/L		<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Salt CMC:		μg/L		Vapor Press:	2.7E-6	Torr	CHEMFATE
CHRONIC							
Fresh CCC:		μg/L		Henry's Law:	6.5E-5	atm-m ³ /mol	CHEMFATE
Salt CCC:		μg/L		Water Solub:	4.3E-2	mg/L	CHEMFATE
Fresh Ecol LC50:	1.0E+0	μg/L	ECOTOX	Distrib Coef:	4.5E+3	ml/g	DITOR_KD
Salt Ecol LC50:	3.6E+0	μg/L	ECOTOX	Geo Mean Sol:		mg/L	
PERSISTENCE				MOBILITY			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives							
Hydrolysis:		days		Vapor Press:	2.7E-6	Torr	CHEMFATE
Volatility:	1.2E+2	days	THOMAS	Henry's Law:	6.5E-5	atm-m ³ /mol	CHEMFATE
Photolysis:	3.1E-2	days	CHEMFATE	Water Solub:	4.3E-2	mg/L	CHEMFATE
Biodeg:	6.3E+0	days	CHEMFATE	Distrib Coef:	4.5E+3	ml/g	DITOR_KD
Radio:		days		Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:		days		Log Kow:	4.5E+0		
Volatility:	1.8E+0	days	THOMAS	Water Solub:	4.3E-2		
Photolysis:	3.1E-2	days	CHEMFATE	Geo Mean Sol:		mg/L	
Biodeg:	6.3E+0	days	CHEMFATE				
Radio:		days					
Log Kow:	4.5E+0		CHEMFATE				
CLASS INFORMATION							
		<u>Class</u>			<u>Parent Substance</u>		

REFERENCE 2

Page 27

SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Anthracene

CAS Number: 000120-12-7

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	10
Gas Mobility:	0.0020
Gas Migration:	6

Parameter	Value
Toxicity:	10
Water Solub:	4.3E-2
Distrib:	4.5E+3
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	2.0E-3
Non Karst:	2.0E-7

Parameter	Value
Toxicity:	10

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	10

Parameter	Value
Toxicity:	10
Persistence	
River:	0.4000
Lake:	0.4000
Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

Parameter	Value
Fresh Tox:	10000
Salt Tox:	10000
Persistence	
River:	0.4000
Lake:	0.4000
Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value
NAAQS/NESHAPS:	<u>Unit</u> µg/m ³
Cancer Risk:	<u>Unit</u> mg/m ³
Non Cancer Risk:	<u>Unit</u> mg/m ³

Parameter	Value
MCL/MCLG:	<u>Unit</u> mg/L
Cancer Risk:	<u>Unit</u> mg/L
Non Cancer Risk:	<u>Unit</u> mg/L

Parameter	Value
Cancer Risk:	<u>Unit</u> mg/kg
Non Cancer Risk:	<u>Unit</u> 2.3E+4 mg/kg

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m ³
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
MCL/MCLG:	<u>Unit</u> mg/L
Cancer Risk:	<u>Unit</u> mg/L
Non Cancer Risk:	<u>Unit</u> 1.1E+1 mg/L

Parameter	Value
FDAAL:	<u>Unit</u> ppm
Cancer Risk:	<u>Unit</u> mg/kg
Non Cancer Risk:	<u>Unit</u> 4.1E+2 mg/kg

Parameter	Value
ACUTE	
Fresh CMC:	
Salt CMC:	

CHRONIC	
Fresh CCC:	<u>Unit</u> µg/L
Salt CCC:	<u>Unit</u> µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Antimony

CAS Number: 007440-36-0

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>		
Oral RfD:	4.0E-4	mg/kg/day	IRIS	Metal Contain:	Yes		
Inhal RfD:	1.1E-4	mg/kg/day	STSC	Organic:	No		
Oral Slope:		(mg/kg/day)^-1		Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.2E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	6.7E+0	g/mL @ 25.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:	7.0E+3	mg/kg	RTECS				
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L

Fresh Ecol LC50:	μg/L
Salt Ecol LC50:	4.2E+3

RTECS

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
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LAKE - Halflives

Hydrolysis:	days
Volatility:	days
Photolysis:	days
Biodeg:	days
Radio:	days

RIVER - Halflives

Hydrolysis:	days
Volatility:	days
Photolysis:	days
Biodeg:	days
Radio:	days

Log Kow: 7.3E-1

PHYSPROP

MOBILITY			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:	2.5E-2	atm-m3/mol	PHYSPROP
Water Solub:		mg/L	
Distrib Coef:	4.5E+1	ml/g	BAES_KD
Geo Mean Sol:	1.7E+5	mg/L	CALC

BIOACCUMULATION			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.0E+0		VER_BCF
Salt BCF:	4.4E+0		ECOTOX

ENVIRONMENTAL

Fresh BCF:	1.0E+0		VER_BCF
Salt BCF:	1.7E+1		ECOTOX
Log Kow:	7.3E-1		PHYSPROP
Water Solub:		mg/L	
Geo Mean Sol:	1.7E+5	mg/L	CALC

OTHER DATA			
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Melting Point:	6.3E+2	C
Boiling Point:	1.6E+3	C
Formula:	Sb	

CLASS INFORMATION			
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Class Parent Substance

REFERENCE 2

Page 29

SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Antimony

CAS Number: 007440-36-0

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	10000
Gas Mobility:	
Gas Migration:	

Parameter	Value
Toxicity:	10000
Water Solub:	
Distrib:	4.5E+1
Geo Mean Sol:	1.7E+5
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E-2

Parameter	Value
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	10000

Parameter	Value
Toxicity:	10000
Persistence	
River:	1.0000
Lake:	1.0000

Parameter	Value
Fresh Tox:	100
Salt Tox:	100

Persistence	River:	Lake:
River:	1.0000	
Lake:	1.0000	

Bioaccumulation	Fresh:	Salt:
Fresh:	5.0	
Salt:	5.0	50.0

Bioaccumulation	Fresh:	Salt:
Fresh:	5.0	
Salt:	5.0	50.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m ³
Cancer Risk:		mg/m ³
Non Cancer Risk:	4.2E-4	mg/m ³

Parameter	Value	Unit
MCL/MCLG:	6.0E-3	MCL/MCLG:
Cancer Risk:		mg/L
Non Cancer Risk:	1.5E-2	Non Cancer Risk:

Parameter	Value	Unit
Cancer Risk:		mg/L
Non Cancer Risk:	3.1E+1	mg/L

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m ³
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit
MCL/MCLG:	6.0E-3	mg/L
Cancer Risk:		mg/L
Non Cancer Risk:	1.5E-2	mg/L

Parameter	Value	Unit
FDAAL:		ppm
Cancer Risk:		mg/kg

Parameter	Value	Unit
ACUTE		
Fresh CMC:		µg/L
Salt CMC:		µg/L

CHRONIC	
Fresh CCC:	
Salt CCC:	

µg/L
µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Antimony 125(+D) (radionuclide)

CAS Number: 014234-35-6

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	Food: 7.21E-12 Soil: 1.32E-11 Water: 5.13E-12	(pCi)^-1	HEAST
Oral Wt-of-Evid:	A	(pCi)^-1	
Inhal Slope:	1.9E-11	(pCi)^-1	HEAST
Inhal Wt-of-Evid:	A		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.1E+3	days	SSG-Rad
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.1E+3	days	SSG-Rad
Log Kow:	7.3E-1		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>
Metal Contain:	Yes
Organic:	No
Gas:	No
Particulate:	Yes
Radionuclide:	Yes
Rad. Element:	No
Molecular Weight:	1.2E+2
Density:	6.7E+0 g/mL @ 25.00 C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	4.5E+1	ml/g	BAES_KD
Geo Mean Sol:	1.7E+5	mg/L	CALC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.0E+0		VER_BCF
Salt BCF:	4.4E+0		ECOTOX

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Fresh BCF:	1.0E+0		VER_BCF
Salt BCF:	1.7E+1		ECOTOX

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Log Kow:	7.3E-1		PHYSPROP
Water Solub:			
Geo Mean Sol:	1.7E+5	mg/L	CALC

OTHER DATA

Melting Point:	6.3E+2	C
Boiling Point:	1.8E+3	C
Formula:	Sb-109(+D)	

CLASS INFORMATION

<u>Class</u>	<u>Parent Substance</u>
GW Mob:	007440-36-0
Other:	007440-36-0

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Antimony 125(+D) (radionuclide)

CAS Number: 014234-35-6

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
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Toxicity:	1000
-----------	------

Gas Mobility:	
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Gas Migration:	
----------------	--

Parameter	Value
-----------	-------

Toxicity:	1000
-----------	------

Water Solub:	
--------------	--

Distrib:	4.5E+1
----------	--------

Geo Mean Sol:	1.7E+5
---------------	--------

Mobility:	
-----------	--

Liquid	Karst:	1.0E+0
--------	--------	--------

Non Liq.	Karst:	1.0E-2
----------	--------	--------

Non Liq.	Karst:	1.0E+0
----------	--------	--------

Non Karst:	1.0E-2
------------	--------

Parameter	Value
-----------	-------

Toxicity:	1000
-----------	------

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
-----------	-------

Toxicity:	1000
-----------	------

Parameter	Value
-----------	-------

Toxicity:	1000
-----------	------

Parameter	Value
-----------	-------

Fresh Tox:	1000
------------	------

Persistence	
-------------	--

River:	1.0000
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Lake:	1.0000
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Persistence	
-------------	--

River:	1.0000
--------	--------

Lake:	1.0000
-------	--------

Persistence	
-------------	--

River:	1.0000
--------	--------

Lake:	1.0000
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Bioaccumulation	
-----------------	--

Fresh:	5.0
--------	-----

Salt:	5.0
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Bioaccumulation	
-----------------	--

Fresh:	5.0
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Salt:	50.0
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BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value
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NAAQS/NESHAPS:	$\mu\text{g}/\text{m}^3$
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Cancer Risk:	mg/m^3
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Non Cancer Risk:	mg/m^3
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Unit	
------	--

MCL/MCLG:	$\mu\text{g}/\text{m}^3$
-----------	--------------------------

Cancer Risk:	mg/L
--------------	----------------------

Non Cancer Risk:	mg/L
------------------	----------------------

Parameter	Value
-----------	-------

MCL/MCLG:	mg/L
-----------	----------------------

Cancer Risk:	mg/L
--------------	----------------------

Non Cancer Risk:	mg/L
------------------	----------------------

Parameter	Value
-----------	-------

Cancer Risk:	mg/kg
--------------	-----------------------

Non Cancer Risk:	mg/kg
------------------	-----------------------

Parameter	Value
-----------	-------

MCL:	$3.0\text{E}+2$
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UMTRCA:	
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CANCER RISK	
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Air:	$2.5\text{E}-1$
------	-----------------

DW:	$9.3\text{E}+0$
-----	-----------------

FC:	$2.4\text{E}+2$
-----	-----------------

Soil Ing:	$6.0\text{E}+4$
-----------	-----------------

Soil Gam:	pCi/kg
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SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
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MCL/MCLG:	mg/L
-----------	----------------------

Cancer Risk:	mg/L
--------------	----------------------

Non Cancer Risk:	mg/L
------------------	----------------------

Unit	
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FDAAL:	ppm
--------	--------------

Cancer Risk:	mg/kg
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Non Cancer Risk:	mg/kg
------------------	-----------------------

Parameter	Value
-----------	-------

ACUTE	
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Fresh CMC:	
------------	--

Salt CMC:	
-----------	--

Unit	
------	--

$\mu\text{g}/\text{L}$	
------------------------	--

$\mu\text{g}/\text{L}$	
------------------------	--

CHRONIC	
---------	--

Fresh CCC:	
------------	--

Salt CCC:	
-----------	--

$\mu\text{g}/\text{L}$	
------------------------	--

$\mu\text{g}/\text{L}$	
------------------------	--

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Arsenic

CAS Number: 007440-38-2

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	3.0E-4	mg/kg/day	IRIS	Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:	1.5E+0	(mg/kg/day)^-1	IRIS	Gas:	No		
Oral Wt-of-Evid:	A			Particulate:	Yes		
Inhal Slope:	1.5E+1	(mg/kg/day)^-1	IRIS	Radionuclide:	No		
Inhal Wt-of-Evid:	A			Rad. Element:	No		
Oral ED10:	7.0E-3	mg/kg/day	EPA_ED10	Molecular Weight:	7.5E+1		
Oral ED10 Wgt:	A			Density:	5.8E+0	g/mL @	C
Inhal ED10:	7.0E-3	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	A						
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:	3.4E+2	A, D, K	WATCRIT				
Salt CMC:	6.9E+1	A, D, bb	WATCRIT				
CHRONIC							
Fresh CCC:	1.5E+2	A, D, K	WATCRIT				
Salt CCC:	3.6E+1	A, D, bb	WATCRIT				
Fresh Ecol LC50:	1.5E+3	μg/L	ECOTOX				
Salt Ecol LC50:	3.9E+2	μg/L	ECOTOX				
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives				Vapor Press:		Torr	
Hydrolysis:		days		Henry's Law:	7.7E-1	atm-m3/mol	PHYSPROP
Volatility:		days		Water Solub:		mg/L	
Photolysis:		days		Distrib Coef:	2.9E+1	mL/g	SSG_KD
Biodeg:		days		Geo Mean Sol:	1.2E+5	mg/L	CALC
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:		days					
Log Kow:	6.8E-1		PHYSPROP				
CLASS INFORMATION				BIOACCUMULATION			
Class	Parent Substance			Parameter	Value	Unit	Source
				FOOD CHAIN			
				Fresh BCF:	4.0E+0		VER_BCF
				Salt BCF:	3.5E+2		VER_BCF
				ENVIRONMENTAL			
				Fresh BCF:	8.7E+3		ECOTOX
				Salt BCF:	3.5E+2		VER_BCF
				Log Kow:	6.8E-1		PHYSPROP
				Water Solub:			
				Geo Mean Sol:	1.2E+5	mg/L	CALC
OTHER DATA							
				Melting Point:	8.2E+2		C
				Boiling Point:	6.0E+2		C
				Formula:	As		

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Arsenic

CAS Number: 007440-38-2

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	10000
Gas Mobility:	
Gas Migration:	

Parameter	Value
Toxicity:	10000
Water Solub:	
Distrib:	2.9E+1
Geo Mean Sol:	1.2E+5
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E-2

Parameter	Value
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	10000
Persistence	
River:	1.0000
Lake:	1.0000

Parameter	Value
Toxicity:	10000
Persistence	
River:	1.0000
Lake:	1.0000
Bioaccumulation	
Fresh:	5.0
Salt:	500.0

Parameter	Value
Fresh Tox:	10
Salt Tox:	100
Persistence	
River:	1.0000
Lake:	1.0000
Bioaccumulation	
Fresh:	5000.0
Salt:	500.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter	Value
NAAQS/NESHAPS:	
Cancer Risk:	5.7E-7
Non Cancer Risk:	

Parameter	Value
Unit	
$\mu\text{g}/\text{m}^3$	MCL/MCLG: 1.0E-2
mg/m ³	Cancer Risk: 5.7E-5
mg/m ³	Non Cancer Risk: 1.1E-2

Parameter	Value
Unit	
mg/L	Cancer Risk: 4.3E-1
mg/L	Non Cancer Risk: 2.3E+1

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m^3
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
MCL/MCLG:	1.0E-2
Cancer Risk:	5.7E-5
Non Cancer Risk:	1.1E-2

Parameter	Value
Unit	
mg/L	FDAAL:
mg/L	Cancer Risk: 2.1E-3
mg/L	Non Cancer Risk: 4.1E-1

Parameter	Value
ACUTE	
Fresh CMC:	3.4E+2 A, D, K
Salt CMC:	6.9E+1 A, D, bb

CHRONIC	
Fresh CCC:	1.5E+2 A, D, K
Salt CCC:	3.6E+1 A, D, bb

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
Chemical: Asbestos

CAS Number: 001332-21-4

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:		(mg/kg/day) ⁻¹		Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Unit Risk:	2.3E-1	fibers/mL		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:			
Oral ED10 Wgt:		mg/kg/day		Density:		g/mL	@ C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg					
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L		Vapor Press:		Torr	
Salt CMC:		µg/L		Henry's Law:		atm-m ³ /mol	
CHRONIC							
Fresh CCC:		µg/L		Water Solub:		mg/L	
Salt CCC:		µg/L		Distrib Coef:	1.0E+3	ml/g	DITOR_KD
PERSISTENCE							
LAKE - Halflives							
Hydrolysis:		days		Geo Mean Sol:		mg/L	
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:		days					
Log Kow:							
OTHER DATA				OTHER DATA			
ENVIRONMENTAL							
Fresh BCF:				Melting Point:		C	
Salt BCF:				Boiling Point:		C	
BIOACCUMULATION							
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
FOOD CHAIN							
Fresh BCF:							
Salt BCF:							
PHYSICAL CHARACTERISTICS							
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Metal Contain:	Yes			Molecular Weight:		g/mol	
Organic:	No			Density:		g/mL	
Gas:	No						
Particulate:	Yes						
Radionuclide:	No						
Rad. Element:	No						
Log Kow:							
Water Solub:							
Geo Mean Sol:							
Formula:	mixture						

Log Kow:

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Asbestos

CAS Number: 001332-21-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:		Water Solub:			
Gas Migration:		Distrib:	1.0E+3		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-4		
		Non Liq. Karst:			
		Non Karst:			

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	0
				Salt Tox:	0
Persistence		Persistence		Persistence	
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	0.5	Fresh:	0.5
		Salt:	0.5	Salt:	0.5

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:	7.0E+0	million fibers/L	Parameter	Value	Unit
Inhal Unit Risk:	2.3E-1	fibers/mL	Cancer Risk:		mg/L	Cancer Risk:		pCi/L
Non Cancer Risk:		mg/m ³	Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg
								UMTRCA:
								pCi/kg
								CANCER RISK
								Air:
								pCi/m ³
								DW:
								pCi/L
								FC:
								pCi/kg
								Soil Ing:
								pCi/kg
								Soil Gam:
								pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:	7.0E+0	million fibers/L	FDAAL:		ppm	ACUTE		
Cancer Risk:		mg/L	Cancer Risk:		mg/kg			
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Fresh CMC:		µg/L
						Salt CMC:		µg/L
								CHRONIC
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Barium

CAS Number: 007440-39-3

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	7.0E-2	mg/kg/day	IRIS	Metal Contain:	Yes		
Inhal RfD:	1.4E-4	mg/kg/day	HEAST	Organic:	No		
Oral Slope:		(mg/kg/day)^-1		Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.4E+2		
Oral ED10 Wgt:				Density:	3.6E+0	g/mL @ 20.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	2.0E+3	mg/kg	ACGIH				
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	3.2E+5	µg/L	ECOTOX				
Salt Ecol LC50:	5.0E+5	µg/L	ECOTOX				
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		Vapor Press:		Torr	
Volatility:		days		Henry's Law:		atm-m3/mol	
Photolysis:		days		Water Solub:		mg/L	
Biodeg:		days		Distrib Coef:	4.1E+1	ml/g	SSG_KD
Radio:		days		Geo Mean Sol:	2.8E+3	mg/L	CALC
RIVER - Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:		days					
Log Kow:	2.3E-1		PHYSPROP				
CLASS INFORMATION				ENVIRONMENTAL			
Class	Parent Substance			Food Chain	Value	Unit	Source
				Fresh BCF:			
				Salt BCF:	7.0E+2		ECOTOX
OTHER DATA							
				Log Kow:	2.3E-1		PHYSPROP
				Water Solub:			
				Geo Mean Sol:	2.8E+3	mg/L	CALC
				Melting Point:	7.3E+2	C	
				Boiling Point:	1.9E+3	C	
				Formula:	Ba		

REFERENCE 2

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Date: 1/28/2004
 Chemical: Barium

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 007440-39-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	10000
Gas Mobility:	
Gas Migration:	

Parameter	Value
Toxicity:	10000
Water Solub:	
Distrib:	4.1E+1
Geo Mean Sol:	2.8E+3
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E-2

Parameter	Value
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	10000

Parameter	Value
Toxicity:	10000

Parameter	Value
Fresh Tox:	1
Salt Tox:	1

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	500.0
Salt:	500.0

Bioaccumulation	
Fresh:	500.0
Salt:	500.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value
NAAQS/NESHAPS:	
Cancer Risk:	
Non Cancer Risk:	5.2E-4

Parameter	Value
µg/m ³	MCL/MCLG:
mg/m ³	Cancer Risk:
mg/m ³	Non Cancer Risk:

Parameter	Value
mg/L	Cancer Risk:
mg/L	Non Cancer Risk:
mg/L	

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m ³
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
MCL/MCLG:	2.0E+0
Cancer Risk:	
Non Cancer Risk:	2.6E+0

Parameter	Value
FDAAL:	
Cancer Risk:	
Non Cancer Risk:	9.5E+1

Parameter	Value	Unit
ACUTE		
Fresh CMC:		µg/L
Salt CMC:		µg/L

CHRONIC		
Fresh CCC:		µg/L
Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Benz(a)anthracene

CAS Number: 000056-55-3

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	7.3E-1	(mg/kg/day)^-1	LIVECHEM	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:	4.7E-2	mg/kg/day	EPA_ED10	Molecular Weight:	2.3E+2		
Oral ED10 Wgt:	B2			Density:	g/mL @	C	
Inhal ED10:	4.7E-2	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	B2						
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	1.0E+1	µg/L	ECOTOX				
Salt Ecol LC50:		µg/L					
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		Vapor Press:	1.1E-7	Torr	CHEMFATE
Volatility:	1.4E+2	days	THOMAS	Henry's Law:	3.4E-6	atm-m3/mol	CHEMFATE
Photolysis:	2.5E-2	days	CHEMFATE	Water Solub:	9.4E-3	mg/L	CHEMFATE
Biodeg:	6.8E+2	days	FATERATE	Distrib Coef:	6.0E+4	ml/g	DITOR_KD
Radio:		days		Geo Mean Sol:	mg/L		
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	4.5E+0	days	THOMAS	Log Kow:	5.7E+0		CHEMFATE
Photolysis:	2.5E-2	days	CHEMFATE	Water Solub:	9.4E-3		CHEMFATE
Biodeg:	6.8E+2	days	FATERATE	Geo Mean Sol:	mg/L		
Radio:		days					
Log Kow:	5.7E+0		CHEMFATE				
CLASS INFORMATION				ENVIRONMENTAL			
Class	Parent Substance			Fresh BCF:	1.0E+4		ECOTOX
				Salt BCF:			
				Log Kow:	5.7E+0		
				Water Solub:	9.4E-3		
				Geo Mean Sol:	mg/L		
OTHER DATA				Melting Point:	8.4E+1	C	
				Boiling Point:		C	
				Formula:	C18 H12		

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Benz(a)anthracene

CAS Number: 000056-55-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000
Gas Mobility:	0.0020
Gas Migration:	6

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000
Water Solub:	9.4E-3
Distrib:	6.0E+4
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Lig. Karst:	2.0E-5
Non Karst:	2.0E-9

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	10000
Salt Tox:	10000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		<u>µg/m3</u>
Cancer Risk:		<u>mg/m3</u>
Non Cancer Risk:		<u>mg/m3</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>MCL/MCLG:</u>
Cancer Risk:	1.2E-4	<u>mg/L</u>
Non Cancer Risk:		<u>mg/L</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Cancer Risk:	8.8E-1	<u>mg/kg</u>
Non Cancer Risk:		<u>mg/kg</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL:		<u>pCi/L</u>
UMTRCA:		<u>pCi/kg</u>
CANCER RISK		
Air:		<u>pCi/m3</u>
DW:		<u>pCi/L</u>
FC:		<u>pCi/kg</u>
Soil Ing:		<u>pCi/kg</u>
Soil Gam:		<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>mg/L</u>
Cancer Risk:	1.2E-4	<u>mg/L</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
FDAAL:		<u>ppm</u>
Cancer Risk:	4.3E-3	<u>mg/kg</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:		<u>µg/L</u>

CHRONIC	
Fresh CCC:	
Salt CCC:	

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Benzene

CAS Number: 000071-43-2

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	4.0E-3	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:	8.6E-3	mg/kg/day	IRIS	Organic:	Yes		
Oral Slope:	5.5E-2	(mg/kg/day) ⁻¹	IRIS	Gas:	Yes		
Oral Wt-of-Evid:	A			Particulate:	No		
Inhal Slope:	2.7E-2	(mg/kg/day) ⁻¹	IRIS	Radionuclide:	No		
Inhal Wt-of-Evid:	A			Rad. Element:	No		
Oral ED10:	3.7E+0	mg/kg/day	EPA_ED10	Molecular Weight:	7.8E+1		
Oral ED10 Wgt:	A			Density:	8.8E-1	g/mL @ 20.00 C	
Inhal ED10:	3.7E+0	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	A						
Oral LD50:	9.3E+2	mg/kg	RTECS				
Dermal LD50:	4.8E+1	mg/kg	RTECS				
Gas Inhal LC50:	1.0E+4	ppm	RTECS				
Dust Inhal LC50:	1.5E+2	mg/L	RTECS				
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	1.0E+3	µg/L	ECOTOX				
Salt Ecol LC50:	1.0E+3	µg/L	ECOTOX				
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days					
Volatility:	7.8E+1	days	THOMAS	Vapor Press:	9.5E+1	Torr	CHEMFATE
Photolysis:	6.7E+2	days	CHEMFATE	Henry's Law:	5.6E-3	atm-m ³ /mol	CHEMFATE
Biodeg:	6.0E+0	days	CHEMFATE	Water Solub:	1.8E+3	mg/L	CHEMFATE
Radio:		days		Distrib Coef:	1.2E-1	ml/g	SSG_KD
RIVER - Halflives							
Hydrolysis:		days		Geo Mean Sol:		mg/L	
Volatility:	8.4E-1	days	THOMAS				
Photolysis:	6.7E+2	days	CHEMFATE				
Biodeg:	6.0E+0	days	CHEMFATE				
Radio:		days					
Log Kow:	2.1E+0		CHEMFATE				
CLASS INFORMATION							
Class	Parent Substance						

REFERENCE 2

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Date: 1/28/2004
Chemical: Benzene

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000071-43-2

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	1000
Gas Mobility:	1.0000
Gas Migration:	17

Parameter	Value
Toxicity:	1000
Water Solub:	1.8E+3
Distrib:	1.2E-1
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E+0

Parameter	Value
Toxicity:	1000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	1000

Parameter	Value
Toxicity:	1000

Parameter	Value
Fresh Tox:	1000
Salt Tox:	1000

Persistence	
River:	0.4000
Lake:	0.4000

Persistence	
River:	0.4000
Lake:	0.4000

Persistence	
River:	0.4000
Lake:	0.4000

Bioaccumulation	
Fresh:	5000.0
Salt:	5000.0

Bioaccumulation	
Fresh:	5000.0
Salt:	50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		<u>µg/m³</u>	MCL/MCLG:	5.0E-3	<u>mg/L</u>	Cancer Risk:	1.2E+1	<u>mg/kg</u>	MCL:		<u>pCi/L</u>
Cancer Risk:	3.1E-4	<u>mg/m³</u>	Cancer Risk:	1.5E-3	<u>mg/L</u>	Non Cancer Risk:	3.1E+2	<u>mg/kg</u>	UMTRCA:		<u>pCi/kg</u>
Non Cancer Risk:	3.1E-2	<u>mg/m³</u>	Non Cancer Risk:	1.5E-1	<u>mg/L</u>				CANCER RISK		
									Air:		<u>pCi/m³</u>
									DW:		<u>pCi/L</u>
									FC:		<u>pCi/kg</u>
									Soil Ing:		<u>pCi/kg</u>
									Soil Gam:		<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:	5.0E-3	<u>mg/L</u>	FDAAL:		<u>ppm</u>	ACUTE		
Cancer Risk:	1.5E-3	<u>mg/L</u>	Cancer Risk:	5.7E-2	<u>mg/kg</u>	Fresh CMC:		<u>µg/L</u>
Non Cancer Risk:	1.5E-1	<u>mg/L</u>	Non Cancer Risk:	5.4E+0	<u>mg/kg</u>	Salt CMC:		<u>µg/L</u>
						CHRONIC		
						Fresh CCC:		<u>µg/L</u>
						Salt CCC:		<u>µg/L</u>

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Benzidine

CAS Number: 000092-87-5

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	3.0E-3	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	2.3E+2	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral Wt-of-Evid:	A			Particulate:	Yes		
Inhal Slope:	2.3E+2	(mg/kg/day)^-1	IRIS	Radionuclide:	No		
Inhal Wt-of-Evid:	A			Rad. Element:	No		
Oral ED10:	4.5E-4	mg/kg/day	EPA_ED10	Molecular Weight:	1.8E+2		
Oral ED10 Wgt:	A			Density:		g/mL @ C	
Inhal ED10:	4.5E-4	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	A						
Oral LD50:	2.1E+2	mg/kg	RTECS				
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	2.5E+3	µg/L	ECOTOX				
Salt Ecol LC50:	4.0E+3	µg/L	ECOTOX				
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		Vapor Press:	8.0E-9	Torr	CHEMFATE
Volatility:		days		Henry's Law:	3.9E-11	atm-m3/mol	CHEMFATE
Photolysis:		days		Water Solub:	5.0E+2	mg/L	CHEMFATE
Biodeg:	8.0E+0	days	FATERATE	Distrib Coef:	6.5E+0	ml/g	DITOR_KD
Radio:		days		Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:	8.0E+0	days	FATERATE				
Radio:		days					
Log Kow:	1.7E+0		CHEMFATE				
CLASS INFORMATION				ENVIRONMENTAL			
Class	Parent Substance			Food Chain	Value	Unit	Source
				Fresh BCF:	4.4E+1		ECOTOX
				Salt BCF:			
				Log Kow:	1.7E+0		CHEMFATE
				Water Solub:	5.0E+2		CHEMFATE
				Geo Mean Sol:		mg/L	
OTHER DATA				Melting Point:	1.2E+2	C	
				Boiling Point:	4.0E+2	C	
				Formula:	C12 H12 N2		

REFERENCE 2

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Date: 1/28/2004
 Chemical: Benzidine

CAS Number: 000092-87-5

SUPERFUND CHEMICAL DATA MATRIX

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:	0.0002	Water Solub:	5.0E+2		
Gas Migration:	0	Distrib:	6.5E+0		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	100
				Salt Tox:	100
Persistence		Persistence		Persistence	
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	0.4000	Lake:	0.4000	Lake:	0.4000
		Bioaccumulation		Bioaccumulation	
		Fresh:	50.0	Fresh:	5000.0
		Salt:	50.0	Salt:	5000.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		<u>µg/m³</u>	MCL/MCLG:		<u>mg/L</u>	Cancer Risk:	2.8E-3
Cancer Risk:	3.6E-8	<u>mg/m³</u>	Cancer Risk:	3.7E-7	<u>mg/L</u>	Non Cancer Risk:	2.3E+2
Non Cancer Risk:		<u>mg/m³</u>	Non Cancer Risk:	1.1E-1	<u>mg/L</u>		
						UMTRCA:	
						CANCER RISK	
						Air:	<u>pCi/m³</u>
						DW:	<u>pCi/L</u>
						FC:	<u>pCi/kg</u>
						Soil Ing:	<u>pCi/kg</u>
						Soil Gam:	<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>mg/L</u>	FDAAL:		<u>ppm</u>
Cancer Risk:	3.7E-7	<u>mg/L</u>	Cancer Risk:	1.4E-5	<u>mg/kg</u>
Non Cancer Risk:	1.1E-1	<u>mg/L</u>	Non Cancer Risk:	4.1E+0	<u>mg/kg</u>
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:
					<u>µg/L</u>
					<u>µg/L</u>

REFERENCE 2

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Date: 1/28/2004
Chemical: Benzo(a)pyrene

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000050-32-8

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	7.3E+0	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:	4.0E-3	mg/kg/day	EPA_ED10	Molecular Weight:	2.5E+2		
Oral ED10 Wgt:	B2			Density:		g/mL @	C
Inhal ED10:	4.0E-3	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	B2						
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L		Parameter	Value	Unit	Source
Salt CMC:		µg/L		Vapor Press:	5.5E-9	Torr	CHEMFATE
CHRONIC				Henry's Law:	1.1E-6	atm-m3/mol	CHEMFATE
Fresh CCC:		µg/L		Water Solub:	1.6E-3	mg/L	CHEMFATE
Salt CCC:		µg/L		Distrib Coef:	1.6E+5	ml/g	DITOR_KD
Fresh Ecol LC50:	5.0E+0	µg/L	ECOTOX	Geo Mean Sol:		mg/L	
Salt Ecol LC50:	1.0E+3	µg/L	ECOTOX				
PERSISTENCE							
Parameter	Value	Unit	Source	ENVIRONMENTAL			
LAKE - Halflives							
Hydrolysis:		days		Fresh BCF:	2.9E+5		ECOTOX
Volatility:	1.8E+2	days	THOMAS	Salt BCF:	9.6E+5		ECOTOX
Photolysis:	2.3E-2	days	CHEMFATE				
Biodeg:	5.3E+2	days	FATERATE				
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days		Log Kow:	6.0E+0		CHEMFATE
Volatility:	3.6E+1	days	THOMAS	Water Solub:	1.6E-3		CHEMFATE
Photolysis:	2.3E-2	days	CHEMFATE	Geo Mean Sol:		mg/L	
Biodeg:	5.3E+2	days	FATERATE				
Radio:		days					
Log Kow:	6.0E+0		CHEMFATE	OTHER DATA			
				Melting Point:	1.8E+2	C	
				Boiling Point:	3.1E+2	C	
				Formula:	C20 H12		

CLASS INFORMATION

Class

Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Benzo(a)pyrene

CAS Number: 000050-32-8

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter Value
 Toxicity: 10000
 Gas Mobility: 0.0002
 Gas Migration: 6

Parameter Value
 Toxicity: 10000
 Water Solub: 1.6E-3
 Distrib: 1.6E+5
 Geo Mean Sol:
 Mobility:
 Liquid Karst: 1.0E+0
 Non Karst: 1.0E-4
 Non Liq. Karst: 2.0E-5
 Non Karst: 2.0E-9

Parameter Value
 Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value
 Toxicity: 10000

Parameter Value
 Toxicity: 10000

Parameter Value
 Fresh Tox: 10000
 Salt Tox: 1000

Persistence
 River: 1.0000
 Lake: 1.0000

Persistence
 River: 1.0000
 Lake: 1.0000

Persistence
 River: 1.0000
 Lake: 1.0000

Bioaccumulation
 Fresh: 50000.0
 Salt: 50000.0

Bioaccumulation
 Fresh: 50000.0
 Salt: 50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		<u>µg/m³</u>	MCL/MCLG:	2.0E-4	<u>mg/L</u>	Cancer Risk:	8.8E-2	<u>mg/kg</u>	MCL:		<u>pCi/L</u>
Cancer Risk:		<u>mg/m³</u>	Cancer Risk:	1.2E-5	<u>mg/L</u>	Non Cancer Risk:		<u>mg/kg</u>	UMTRCA:		<u>pCi/kg</u>
Non Cancer Risk:		<u>mg/m³</u>	Non Cancer Risk:		<u>mg/L</u>				CANCER RISK		

Air: pCi/m³
 DW: pCi/L
 FC: pCi/kg
 Soil Ing: pCi/kg
 Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:	2.0E-4	<u>mg/L</u>	FDAAL:		<u>ppm</u>	ACUTE		
Cancer Risk:	1.2E-5	<u>mg/L</u>	Cancer Risk:	4.3E-4	<u>mg/kg</u>	Fresh CMC:		<u>µg/L</u>
Non Cancer Risk:		<u>mg/L</u>	Non Cancer Risk:		<u>mg/kg</u>	Salt CMC:		<u>µg/L</u>

CHRONIC
 Fresh CCC: µg/L
 Salt CCC: µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Benzo(g,h,i)perylene

CAS Number: 000191-24-2

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	2.8E+2		
Oral ED10 Wgt:		mg/kg/day		Density:		g/mL @ C	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg					
Oral LD50:		mg/kg					
Dermal LD50:		ppm					
Gas Inhal LC50:		mg/L					
Dust Inhal LC50:							
ACUTE							
Fresh CMC:		μg/L					
Salt CMC:		μg/L					
CHRONIC							
Fresh CCC:		μg/L					
Salt CCC:		μg/L					
Fresh Ecol LC50:		μg/L					
Salt Ecol LC50:		μg/L					
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		Vapor Press:	1.0E-10	Torr	CHEMFATE
Volatility:	4.6E+2	days	THOMAS	Henry's Law:	1.4E-7	atm-m3/mol	CHEMFATE
Photolysis:		days		Water Solub:	2.6E-4	mg/L	CHEMFATE
Biodeg:	6.5E+2	days	FATERATE	Distrib Coef:	4.5E+5	ml/g	DITOR_KD
Radio:		days		Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	2.9E+2	days	THOMAS				
Photolysis:		days					
Biodeg:	6.5E+2	days	FATERATE				
Radio:		days					
Log Kow:	6.6E+0		CHEMFATE				
CLASS INFORMATION				ENVIRONMENTAL			
Class	Parent Substance			Food Chain	Value	Unit	Source
				FRESH BCF:			
				SALT BCF:			
				ENVIRONMENTAL			
				FRESH BCF:	2.8E+4		ECOTOX
				SALT BCF:			
				LOG KOW:	6.6E+0		CHEMFATE
				WATER SOLUB:	2.6E-4		CHEMFATE
				geo mean sol:		mg/L	
OTHER DATA				Melting Point:		C	
				Boiling Point:		C	
				Formula:	C22 H12		

REFERENCE 2

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Date: 1/28/2004
 Chemical: Benzo(g,h,i)perylene

CAS Number: 000191-24-2

SUPERFUND CHEMICAL DATA MATRIX

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	0	Toxicity:	0	Toxicity:	0
Gas Mobility:		Water Solub:	2.6E-4		
Gas Migration:		Distrib:	4.5E+5		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-4		
		Non Liq. Karst:	2.0E-5		
		Non Karst:	2.0E-9		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	0	Toxicity:	0	Fresh Tox:	0
Persistence		Persistence		Salt Tox:	0
River:	1.0000	River:	1.0000	Persistence	
Lake:	1.0000	Lake:	1.0000	River:	1.0000
		Bioaccumulation		Lake:	1.0000
		Fresh:	50000.0	Bioaccumulation	
		Salt:	50000.0	Fresh:	50000.0
				Salt:	50000.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		<u>µg/m³</u>	MCL/MCLG:		<u>mg/L</u>	Cancer Risk:	
Cancer Risk:		<u>mg/m³</u>	Cancer Risk:		<u>mg/L</u>	Non Cancer Risk:	
Non Cancer Risk:		<u>mg/m³</u>	Non Cancer Risk:		<u>mg/L</u>		CANCER RISK
						Air:	<u>pCi/m³</u>
						DW:	<u>pCi/L</u>
						FC:	<u>pCi/kg</u>
						Soil Ing:	<u>pCi/kg</u>
						Soil Gam:	<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>mg/L</u>	FDAAL:		<u>ppm</u>
Cancer Risk:		<u>mg/L</u>	Cancer Risk:		<u>mg/kg</u>
Non Cancer Risk:		<u>mg/L</u>	Non Cancer Risk:		<u>mg/kg</u>
				ACUTE	
				Fresh CMC:	<u>µg/L</u>
				Salt CMC:	<u>µg/L</u>
				CHRONIC	
				Fresh CCC:	<u>µg/L</u>
				Salt CCC:	<u>µg/L</u>

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/23/2004

Chemical: Benzo(j,k)fluorene (Fluoranthene)

CAS Number: 000206-44-0

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	4.0E-2	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:		(mg/kg/day)^-1	
Inhal Slope:		(mg/kg/day)^-1	
Inhal Wt-of-Evid:			
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:	2.0E+3	mg/kg	RTECS
Dermal LD50:	3.2E+3	mg/kg	RTECS
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L

Fresh Ecol LC50:	9.0E-1	μg/L	ECOTOX
Salt Ecol LC50:	9.0E-2	μg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	1.3E+2	days	THOMAS
Photolysis:	2.6E+0	days	FATERATE
Biodeg:	4.4E+2	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:	3.5E+0	days	THOMAS
Photolysis:	2.6E+0	days	FATERATE
Biodeg:	4.4E+2	days	FATERATE
Radio:		days	
Log Kow:	5.0E+0		CHEMFATE

Log Kow: 5.0E+0 CHEMFATE

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>
Metal Contain:	No
Organic:	Yes
Gas:	Yes
Particulate:	Yes
Radionuclide:	No
Rad. Element:	No
Molecular Weight:	2.0E+2
Density:	1.3E+0 g/mL @ 0.00 C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	7.8E-6	Torr	LIVECHEM
Henry's Law:	1.6E-5	atm-m3/mol	CHEMFATE
Water Solub:	2.1E-1	mg/L	CHEMFATE
Distrib Coef:	1.1E+4	ml/g	DITOR_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	3.8E+2		VER_BCF
Salt BCF:	5.9E+3		ECOTOX

ENVIRONMENTAL

Fresh BCF:	3.1E+3	ECOTOX
Salt BCF:	5.9E+3	ECOTOX
Log Kow:	5.0E+0	CHEMFATE
Water Solub:	2.1E-1	CHEMFATE
Geo Mean Sol:		mg/L

OTHER DATA

Melting Point:	1.1E+2	C
Boiling Point:	3.8E+2	C
Formula:	C16 H10	

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Benzo(j,k)fluorene (Fluoranthene)

CAS Number: 000206-44-0

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Gas Mobility:	0.0020
Gas Migration:	6

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Water Solub:	2.1E-1
Distrib:	1.1E+4
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	2.0E-3
Non Karst:	2.0E-7

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	10000
Salt Tox:	10000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	500.0
Salt:	5000.0

Bioaccumulation	
Fresh:	5000.0
Salt:	5000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	
NAAQS/NESHAPS:		$\mu\text{g}/\text{m}^3$	MCL/MCLG:		mg/L	Cancer Risk:		mg/kg	<u>MCL:</u>
Cancer Risk:		mg/m^3	Cancer Risk:		mg/L	Non Cancer Risk:	$3.1\text{E}+3$	mg/kg	UMTRCA:
Non Cancer Risk:		mg/m^3	Non Cancer Risk:	$1.5\text{E}+0$	mg/L				CANCER RISK
									Air:
									DW:
									FC:
									Soil Ing:
									Soil Gam:
									pCi/m^3
									pCi/L
									pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		$\mu\text{g}/\text{L}$
Non Cancer Risk:	$1.5\text{E}+0$	mg/L	Non Cancer Risk:	$5.4\text{E}+1$	mg/kg	Salt CMC:		$\mu\text{g}/\text{L}$
						CHRONIC		
						Fresh CCC:		$\mu\text{g}/\text{L}$
						Salt CCC:		$\mu\text{g}/\text{L}$

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Benzo(k)fluoranthene

CAS Number: 000207-08-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	7.3E-2	(mg/kg/day)^-1	LIVECHEM
Oral Wt-of-Evid:	B2	(mg/kg/day)^-1	
Inhal Slope:		(mg/kg/day)^-1	
Inhal Wt-of-Evid:		mg/kg/day	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L
Fresh Ecol LC50:	μg/L
Salt Ecol LC50:	μg/L

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Metal Contain:	No		
Organic:	Yes		
Gas:	Yes		
Particulate:	Yes		
Radionuclide:	No		
Rad. Element:	No		
Molecular Weight:	2.5E+2		
Density:		g/mL @	C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.0E-9	Torr	CHEMFATE
Henry's Law:	8.3E-7	atm-m3/mol	CHEMFATE
Water Solub:	8.0E-4	mg/L	CHEMFATE
Distrib Coef:	1.9E+5	ml/g	DITOR_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:	2.0E+5		ECOTOX

ENVIRONMENTAL

Fresh BCF:	1.3E+4		ECOTOX
Salt BCF:	2.0E+5		ECOTOX
Log Kow:	6.1E+0		CHEMFATE
Water Solub:	8.0E-4		CHEMFATE
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.2E+2	C
Boiling Point:	4.8E+2	C
Formula:	C20 H12	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	1.9E+2	days	THOMAS
Photolysis:	2.1E+1	days	FATERATE
Biodeg:	2.1E+3	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:	4.8E+1	days	THOMAS
Photolysis:	2.1E+1	days	FATERATE
Biodeg:	2.1E+3	days	FATERATE
Radio:		days	

Log Kow: 6.1E+0 CHEMFATE

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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Date: 1/28/2004
 Chemical: Benzo(k)fluoranthene

CAS Number: 000207-08-9

SUPERFUND CHEMICAL DATA MATRIX

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	100	Toxicity:	100	Toxicity:	100
Gas Mobility:	0.0002	Water Solub:	8.0E-4		
Gas Migration:	6	Distrib:	1.9E+5		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-4		
		Non Liq. Karst:	2.0E-5		
		Non Karst:	2.0E-9		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	100	Toxicity:	100	Fresh Tox:	0
Persistence		Persistence		Salt Tox:	0
River:	1.0000	River:	1.0000	Persistence	
Lake:	1.0000	Lake:	1.0000	River:	1.0000
		Bioaccumulation		Lake:	1.0000
		Fresh:	50000.0	Bioaccumulation	
		Salt:	50000.0	Fresh:	50000.0
				Salt:	50000.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		<u>µg/m³</u>	MCL/MCLG:		<u>mg/L</u>	Cancer Risk:	8.8E+0
Cancer Risk:		<u>mg/m³</u>	Cancer Risk:	1.2E-3	<u>mg/L</u>	Non Cancer Risk:	
Non Cancer Risk:		<u>mg/m³</u>	Non Cancer Risk:		<u>mg/L</u>		CANCER RISK
						Air:	pCi/m³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>mg/L</u>	FDAAL:		<u>ppm</u>
Cancer Risk:	1.2E-3	<u>mg/L</u>	Cancer Risk:	4.3E-2	<u>mg/kg</u>
Non Cancer Risk:		<u>mg/L</u>	Non Cancer Risk:		<u>mg/kg</u>
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Beryllium

CAS Number: 007440-41-7

TOXICITY				PHYSICAL CHARACTERISTICS							
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source				
Oral RfD:	2.0E-3	mg/kg/day	IRIS	Metal Contain:	Yes						
Inhal RfD:	5.7E+0	mg/kg/day	IRIS	Organic:	No						
Oral Slope:		(mg/kg/day)^-1		Gas:	No						
Oral Wt-of-Evid:				Particulate:	Yes						
Inhal Slope:	8.4E+0	(mg/kg/day)^-1	HEAST	Radionuclide:	No						
Inhal Wt-of-Evid:	B1			Rad. Element:	No						
Oral ED10:	1.3E-2	mg/kg/day	EPA_ED10	Molecular Weight:	9.0E+0						
Oral ED10 Wgt:	B2			Density:	1.9E+0	g/mL @ C					
Inhal ED10:	1.3E-2	mg/kg/day	EPA_ED10								
Inhal ED10 Wgt:	B2										
Oral LD50:		mg/kg									
Dermal LD50:		mg/kg									
Gas Inhal LC50:		ppm									
Dust Inhal LC50:		mg/L									
ACUTE											
Fresh CMC:		µg/L		Parameter	Value	Unit	Source				
Salt CMC:		µg/L		Vapor Press:		Torr					
CHRONIC											
Fresh CCC:		µg/L		Henry's Law:	1.5E-2	atm-m3/mol	PHYSPROP				
Salt CCC:		µg/L		Water Solub:		mg/L					
Fresh Ecol LC50:		µg/L		Distrib Coef:	7.9E+2	ml/g	SSG_KD				
Salt Ecol LC50:		µg/L		Geo Mean Sol:	8.4E+4	mg/L	CALC				
PERSISTENCE				BIOACCUMULATION							
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source				
LAKE - Halflives											
Hydrolysis:		days		FOOD CHAIN							
Volatility:		days		Fresh BCF:	1.9E+1		VER_BCF				
Photolysis:		days		Salt BCF:							
Biodeg:		days		ENVIRONMENTAL							
Radio:		days		Fresh BCF:	1.9E+1		VER_BCF				
RIVER - Halflives				Salt BCF:							
Hydrolysis:		days		Log Kow:	-5.7E-1		PHYSPROP				
Volatility:		days		Water Solub:							
Photolysis:		days		Geo Mean Sol:	8.4E+4	mg/L	CALC				
Biodeg:		days									
Radio:		days									
Log Kow:	-5.7E-1		PHYSPROP	OTHER DATA							
				Melting Point:	1.3E+3	1287					
				Boiling Point:	2.5E+3	C					
				Formula:	Be						
CLASS INFORMATION											
				Class		Parent Substance					

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Beryllium

CAS Number: 007440-41-7

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:		Water Solub:			
Gas Migration:		Distrib:	7.9E+2		
		Geo Mean Sol:	8.4E+4		
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-2		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E-2		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	0
Persistence		Persistence		Salt Tox:	0
River:	1.0000	River:	1.0000	Persistence	
Lake:	1.0000	Lake:	1.0000	River:	1.0000
		Bioaccumulation		Lake:	1.0000
		Fresh:	50.0	Bioaccumulation	
		Salt:	50.0	Fresh:	50.0
				Salt:	50.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value
NAAQS/NESHAPS:	1.0E-2	µg/m³	MCL/MCLG:	4.0E-3	mg/L	Cancer Risk:	
Cancer Risk:	1.0E-6	mg/m³	Cancer Risk:		mg/L	Non Cancer Risk:	1.6E+2
Non Cancer Risk:	2.1E+1	mg/m³	Non Cancer Risk:	7.3E-2	mg/L		
						MCL:	
						UMTRCA:	
						CANCER RISK	
						Air:	pCi/m³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:	4.0E-3	mg/L	FDAAL:		ppm
Cancer Risk:		mg/L	Cancer Risk:		mg/kg
Non Cancer Risk:	7.3E-2	mg/L	Non Cancer Risk:	2.7E+0	mg/kg
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Bis (2-ethylhexyl) phthalate

CAS Number: 000117-81-7

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	2.0E-2	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	1.4E-2	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:	5.2E+0	mg/kg/day	EPA_ED10	Molecular Weight:	3.9E+2		
Oral ED10 Wgt:	B2			Density:	9.8E-1	g/mL @ 25.00 C	
Inhal ED10:	5.2E+0	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	B2						
Oral LD50:	2.6E+4	mg/kg	ACGIH				
Dermal LD50:	2.5E+4	mg/kg	ACGIH				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	1.6E+2	µg/L	ECOTOX				
Salt Ecol LC50:	1.0E+3	µg/L	ECOTOX				
PERSISTENCE							
Parameter	Value	Unit	Source				
LAKE - Halflives							
Hydrolysis:	7.3E+5	days	CHEMFATE				
Volatility:	6.9E+2	days	THOMAS				
Photolysis:	2.0E+2	days	FATERATE				
Biodeg:	8.0E-1	days	CHEMFATE				
Radio:		days					
RIVER - Halflives							
Hydrolysis:	7.3E+5	days	CHEMFATE				
Volatility:	4.8E+2	days	THOMAS				
Photolysis:	2.0E+2	days	FATERATE				
Biodeg:	8.0E-1	days	CHEMFATE				
Radio:		days					
Log Kow:	5.1E+0		CHEMFATE				
CLASS INFORMATION							
Class				Parent Substance			

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Bis (2-ethylhexyl) phthalate

CAS Number: 000117-81-7

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Gas Mobility:	0.0002
Gas Migration:	6

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Water Solub:	3.4E-1
Distrib:	2.3E+6
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	2.0E-3
Non Karst:	2.0E-7

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	1000
Salt Tox:	1000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	50000.0
Salt:	500.0

Bioaccumulation	
Fresh:	50000.0
Salt:	5000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:	
Cancer Risk:	
Non Cancer Risk:	

<u>Parameter</u>	<u>Value</u>
Unit	
µg/m ³	MCL/MCLG:
mg/m ³	Cancer Risk:
mg/m ³	Non Cancer Risk:

<u>Parameter</u>	<u>Value</u>
Unit	
mg/L	Cancer Risk:
mg/L	Non Cancer Risk:

<u>Parameter</u>	<u>Value</u>
Unit	
mg/kg	MCL:
mg/kg	UMTRCA:
CANCER RISK	
Air:	pCi/m ³
DW:	pCi/L
FC:	pCi/kg
Soil Ing:	pCi/kg
Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	6.0E-3
Cancer Risk:	6.1E-3
Non Cancer Risk:	7.3E-1

<u>Parameter</u>	<u>Value</u>
Unit	
mg/L	FDAAL:
mg/L	Cancer Risk:
mg/L	Non Cancer Risk:

<u>Parameter</u>	<u>Value</u>
Unit	
ppm	ACUTE
mg/kg	Fresh CMC:
mg/kg	Salt CMC:

CHRONIC

Fresh CCC:	µg/L
Salt CCC:	µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Boron

CAS Number: 007440-42-8

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	9.0E-2	mg/kg/day	IRIS
Inhal RfD:	5.7E-3	mg/kg/day	HEAST
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:		(mg/kg/day)^-1	
Inhal Slope:		(mg/kg/day)^-1	
Inhal Wt-of-Evid:			
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg	
Oral LD50:		mg/kg	
Dermal LD50:		ppm	
Gas Inhal LC50:		mg/L	
Dust Inhal LC50:			
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Metal Contain:	Yes		
Organic:	No		
Gas:	No		
Particulate:	Yes		
Radionuclide:	No		
Rad. Element:	No		
Molecular Weight:	1.1E+1		
Density:	2.3E+0	g/mL @ C	

MOBILITY			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	3.0E+0	ml/g	BAES_KD
Geo Mean Sol:	3.6E+4	mg/L	CALC

BIOACCUMULATION			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:	3.6E+4	mg/L	CALC

OTHER DATA			
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Melting Point:	2.1E+3	C
Boiling Point:	4.0E+3	C
Formula:	B	

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	

Log Kow:

CLASS INFORMATION			
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Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Boron

CAS Number: 007440-42-8

ASSIGNED FACTOR VALUES

AIR PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Gas Mobility:	
Gas Migration:	

GROUND WATER PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Water Solub:	
Distrib:	3.0E+0
Geo Mean Sol:	3.6E+4
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E+0

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

SURFACE WATER PATHWAY

DRINKING WATER

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

HUMAN FOOD CHAIN

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	0
Salt Tox:	0

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation

Fresh:	0.5
Salt:	0.5

Bioaccumulation

Fresh:	0.5
Salt:	0.5

BENCHMARKS

AIR PATHWAY

<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:	
Cancer Risk:	
Non Cancer Risk:	2.1E-2

GROUND WATER PATHWAY

<u>Parameter</u>	<u>Value</u>
Unit	
µg/m ³	MCL/MCLG:
mg/m ³	Cancer Risk:
mg/m ³	Non Cancer Risk:

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Unit	
mg/L	Cancer Risk:
mg/L	Non Cancer Risk:
mg/L	7.0E+3

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m ³
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	
Cancer Risk:	
Non Cancer Risk:	3.3E+0

HUMAN FOOD CHAIN

<u>Parameter</u>	<u>Value</u>
Unit	
mg/L	FDAAL:
mg/L	Cancer Risk:
mg/L	Non Cancer Risk:

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:		µg/L
Salt CMC:		µg/L
CHRONIC		
Fresh CCC:		µg/L
Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Bromodichloromethane

CAS Number: 000075-27-4

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	2.0E-2	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	6.2E-2	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral LD-of-Evid:	B2			Particulate:	No		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal LD-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.6E+2		
Oral ED10 Wgt:				Density:	2.0E+0	g/mL @ 20.00 C	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	4.3E+2	mg/kg	RTECS				
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:		µg/L					
Salt Ecol LC50:		µg/L					
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:	5.0E+4	days	CHEMFATE	Vapor Press:	5.0E+1	Torr	CHEMFATE
Volatility:	1.1E+2	days	THOMAS	Henry's Law:	1.6E-3	atm-m3/mol	CHEMFATE
Photolysis:		days		Water Solub:	6.7E+3	mg/L	CHEMFATE
Biodeg:		days		Distrib Coef:	1.1E-1	ml/g	SSG_KD
Radio:		days		Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:	5.0E+4	days	CHEMFATE				
Volatility:	1.2E+0	days	THOMAS				
Photolysis:		days					
Biodeg:		days					
Radio:		days					
Log Kow:	2.1E+0		CHEMFATE				
CLASS INFORMATION				ENVIRONMENTAL			
Class	Parent Substance			Food Chain	Value	Unit	Source
				Fresh BCF:			
				Salt BCF:			
OTHER DATA							
				Log Kow:	2.1E+0		CHEMFATE
				Water Solub:	6.7E+3		CHEMFATE
				Geo Mean Sol:		mg/L	
				Melting Point:	-5.7E+1	C	
				Boiling Point:	9.0E+1	C	
				Formula:	C H Br Cl2		

CLASS INFORMATION

Class

Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Bromodichloromethane

CAS Number: 000075-27-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Gas Mobility:	1.0000
Gas Migration:	17

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Water Solub:	6.7E+3
Distrib:	1.1E-1
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E+0

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	0
Salt Tox:	0

Persistence	
River:	0.4000
Lake:	1.0000

Persistence	
River:	0.4000
Lake:	1.0000

Persistence	
River:	0.4000
Lake:	1.0000

Bioaccumulation	
Fresh:	50.0
Salt:	50.0

Bioaccumulation	
Fresh:	50.0
Salt:	50.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		<u>µg/m3</u>
Cancer Risk:		<u>mg/m3</u>
Non Cancer Risk:		<u>mg/m3</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>MCL/MCLG:</u>
Cancer Risk:	1.4E-3	<u>Cancer Risk:</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
FDAAL:		<u>ppm</u>
Cancer Risk:	5.1E-2	<u>mg/kg</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Cancer Risk:	1.0E+1	<u>mg/kg</u>
Non Cancer Risk:	1.6E+3	

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL:		<u>pCi/L</u>
UMTRCA:		<u>pCi/kg</u>

CANCER RISK	
Air:	<u>pCi/m3</u>
DW:	<u>pCi/L</u>
FC:	<u>pCi/kg</u>
Soil Ing:	<u>pCi/kg</u>
Soil Gam:	<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>mg/L</u>
Cancer Risk:	1.4E-3	<u>mg/L</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
FDAAL:		<u>ppm</u>
Cancer Risk:	2.7E+1	<u>mg/kg</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:		<u>µg/L</u>

CHRONIC	
Fresh CCC:	<u>µg/L</u>
Salt CCC:	<u>µg/L</u>

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Butylbenzyl phthalate

CAS Number: 000085-68-7

TOXICITY				PHYSICAL CHARACTERISTICS			
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Parameter	Value	Unit	Source
Oral RfD:	2.0E-1	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Inhal Wt-of-Evid:			
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:	2.3E+3	mg/kg	RTECS
Dermal LD50:	1.0E+4	mg/kg	RTECS
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	

ACUTE			
Fresh CMC:		μg/L	
Salt CMC:		μg/L	

CHRONIC			
Fresh CCC:		μg/L	
Salt CCC:		μg/L	

Fresh Ecol LC50:	6.8E+2	μg/L	ECOTOX
Salt Ecol LC50:	4.6E+2	μg/L	ECOTOX

PERSISTENCE			
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Parameter	Value	Unit	Source
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	1.9E+2	days	THOMAS
Photolysis:	1.0E+2	days	CHEMFATE
Biodeg:	4.0E+0	days	CHEMFATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:	3.6E+1	days	THOMAS
Photolysis:	1.0E+2	days	CHEMFATE
Biodeg:	4.0E+0	days	CHEMFATE
Radio:		days	
Log Kow:	4.9E+0		CHEMFATE

Log Kow: 4.9E+0 CHEMFATE

MOBILITY			
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Parameter	Value	Unit	Source
Vapor Press:	8.3E-6	Torr	CHEMFATE
Henry's Law:	1.3E-6	atm-m3/mol	CHEMFATE
Water Solub:	2.7E+0	mg/L	CHEMFATE
Distrib Coef:	8.7E+3	ml/g	DITOR_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
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Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:	7.7E+2		ECOTOX
Salt BCF:			

ENVIRONMENTAL			
Fresh BCF:	7.7E+2		ECOTOX
Salt BCF:			
Log Kow:	4.9E+0		CHEMFATE
Water Solub:	2.7E+0		CHEMFATE
Geo Mean Sol:		mg/L	

OTHER DATA			
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Melting Point:		C
Boiling Point:		C
Formula:	C19 H20 O4	

CLASS INFORMATION			
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Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Butylbenzyl phthalate

CAS Number: 000085-68-7

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10	Toxicity:	10	Toxicity:	10
Gas Mobility:	0.0020	Water Solub:	2.7E+0		
Gas Migration:	6	Distrib:	8.7E+3		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-4		
		Non Liq. Karst:	2.0E-1		
		Non Karst:	2.0E-5		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10	Toxicity:	10	Fresh Tox:	1000
				Salt Tox:	1000
Persistence		Persistence		Persistence	
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	500.0	Fresh:	500.0
		Salt:	500.0	Salt:	500.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value
NAAQS/NESHAPS:		µg/m³	MCL/MCLG:		mg/L	Cancer Risk:	
Cancer Risk:		mg/m³	Cancer Risk:		mg/L	Non Cancer Risk:	1.6E+4
Non Cancer Risk:		mg/m³	Non Cancer Risk:	7.3E+0	mg/L		
						UMTRCA:	
						CANCER RISK	
						Air:	pCi/m³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAL:		ppm
Cancer Risk:		mg/L	Cancer Risk:		mg/kg
Non Cancer Risk:	7.3E+0	mg/L	Non Cancer Risk:	2.7E+2	mg/kg
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:
					µg/L
					µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Cadmium

CAS Number: 007440-43-9

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	5.0E-4	mg/kg/day	IRIS	Metal Contain:	Yes		
Inhal RfD:	2.6E-4	mg/kg/day	STSC	Organic:	No		
Oral Slope:		(mg/kg/day)^-1		Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:	6.3E+0	(mg/kg/day)^-1	IRIS	Radionuclide:	No		
Inhal Wt-of-Evid:	B1			Rad. Element:	No		
Oral ED10:	1.7E-2	mg/kg/day	EPA_ED10	Molecular Weight:	1.1E+2		
Oral ED10 Wgt:	B1			Density:	8.7E+0	g/mL @	C
Inhal ED10:	1.7E-2	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	B1						
Oral LD50:	2.3E+3	mg/kg	RTECS				
DermaL LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:	2.1E+1	mg/L	RTECS				
ACUTE				MOBILITY			
Fresh CMC:	2.0E+0	D, E, K, bb	WATCRIT	Parameter	Value	Unit	Source
Salt CMC:	4.0E+1	D, bb	WATCRIT	Vapor Press:		Torr	
CHRONIC				Henry's Law:	3.1E-2	atm-m3/mol	PHYSPROP
Fresh CCC:	2.5E-1	D, E, K, bb	WATCRIT	Water Solub:		mg/L	
Salt CCC:	8.8E+0	D, bb	WATCRIT	Distrib Coef:	7.5E+1	ml/g	SSG_KD
Fresh Ecol LC50:	4.0E-1	μg/L	ECOTOX	Geo Mean Sol:	1.7E+3	mg/L	CALC
Salt Ecol LC50:	2.0E-1	μg/L	ECOTOX	BIOACCUMULATION			
PERSISTENCE				Parameter	Value	Unit	Source
Parameter	Value	Unit	Source	FOOD CHAIN			
LAKE - Halflives				Fresh BCF:	1.0E+3		ECOTOX
Hydrolysis:		days		Salt BCF:	5.0E+4		ECOTOX
Volatility:		days		ENVIRONMENTAL			
Photolysis:		days		Fresh BCF:	2.0E+5		ECOTOX
Biodeg:		days		Salt BCF:	5.0E+4		ECOTOX
Radio:		days		Log Kow:	-7.0E-2		PHYSPROP
RIVER - Halflives				Water Solub:			
Hydrolysis:		days		Geo Mean Sol:	1.7E+3	mg/L	CALC
Volatility:		days		OTHER DATA			
Photolysis:		days		Melting Point:	3.2E+2		C
Biodeg:		days		Boiling Point:	7.7E+2		C
Radio:		days		Formula:	Cd		
Log Kow:	-7.0E-2		PHYSPROP	CLASS INFORMATION			
				Class			
				Parent Substance			

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Cadmium

CAS Number: 007440-43-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:		Water Solub:			
Gas Migration:		Distrib:	7.5E+1		
		Geo Mean Sol:	1.7E+3		
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-2		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E-2		

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	10000
				Salt Tox:	1000
Persistence		Persistence		Persistence	
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	5000.0	Fresh:	50000.0
		Salt:	50000.0	Salt:	50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		<u>µg/m³</u>	MCL/MCLG:	5.0E-3	<u>mg/L</u>	Cancer Risk:		<u>mg/kg</u>	MCL:		<u>pCi/L</u>
Cancer Risk:	1.4E-6	<u>mg/m³</u>	Cancer Risk:		<u>mg/L</u>	Non Cancer Risk:	3.9E+1	<u>mg/kg</u>	UMTRCA:		<u>pCi/kg</u>
Non Cancer Risk:	9.4E-4	<u>mg/m³</u>	Non Cancer Risk:	1.8E-2	<u>mg/L</u>				CANCER RISK		
									Air:		<u>pCi/m³</u>
									DW:		<u>pCi/L</u>
									FC:		<u>pCi/kg</u>
									Soil Ing:		<u>pCi/kg</u>
									Soil Gam:		<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:	5.0E-3	<u>mg/L</u>	FDAAL:		<u>ppm</u>	ACUTE		
Cancer Risk:		<u>mg/L</u>	Cancer Risk:		<u>mg/kg</u>	Fresh CMC:	2.0E+0 ^{D, E, K, bb}	<u>µg/L</u>
Non Cancer Risk:	1.8E-2	<u>mg/L</u>	Non Cancer Risk:	6.8E-1	<u>mg/kg</u>	Salt CMC:	4.0E+1 ^{D, bb}	<u>µg/L</u>
						CHRONIC		
						Fresh CCC:	2.5E-1 ^{D, E, K, bb}	<u>µg/L</u>
						Salt CCC:	8.8E+0 ^{D, bb}	<u>µg/L</u>

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Cadmium 109 (radionuclide)

CAS Number: 014109-32-1

TOXICITY				PHYSICAL CHARACTERISTICS			
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Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:	Food: 6.70E-12 Soil: 1.14E-11 Water: 5.00E-12	(pCi) ⁻¹	HEAST	Gas:	No		
Oral Wt-of-Evid:	A	(pCi) ⁻¹	HEAST	Particulate:	Yes		
Inhal Slope:	2.2E-11	(pCi) ⁻¹	HEAST	Radionuclide:	Yes		
Inhal Wt-of-Evid:	A			Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.1E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	8.7E+0	g/mL @ 25.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L		Parameter	Value	Unit	Source
Salt CMC:		µg/L		Vapor Press:		Torr	
CHRONIC							
Fresh CCC:		µg/L		Henry's Law:		atm-m ³ /mol	
Salt CCC:		µg/L		Water Solub:		mg/L	
Fresh Ecol LC50:		µg/L		Distrib Coef:	7.5E+1	ml/g	SSG_KD
Salt Ecol LC50:		µg/L		Geo Mean Sol:	1.7E+3	mg/L	CALC

PERSISTENCE			
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Parameter	Value	Unit	Source
LAKE - Halfives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	4.7E+2	days	SSG-Rad
RIVER - Halfives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	4.7E+2	days	SSG-Rad
Log Kow:	-7.0E-2		PHYSPROP

BIOACCUMULATION			
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Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:	1.0E+3		ECOTOX
Salt BCF:	5.0E+4		ECOTOX

ENVIRONMENTAL

Fresh BCF:	2.0E+5		ECOTOX
Salt BCF:	5.0E+4		ECOTOX

Log Kow:	-7.0E-2		PHYSPROP
Water Solub:			
Geo Mean Sol:	1.7E+3	mg/L	CALC

OTHER DATA

Melting Point:	3.2E+2	C
Boiling Point:	7.7E+2	C
Formula:	Cd-109	

CLASS INFORMATION

Class	Parent Substance
GW Mob:	007440-43-9
Other:	007440-43-9

REFERENCE 2

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Date: 1/28/2004

CAS Number: 014109-32-1

SUPERFUND CHEMICAL DATA MATRIX

ASSIGNED FACTOR VALUES					
AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
meter city: Mobility: Migration:	Value 1000	Parameter Toxicity: Water Solub: Distrib: Geo Mean Sol: Mobility: Liquid Karst: Non Karst: Non Liq. Karst: Non Karst:	Value 1000 7.5E+1 1.7E+3 1.0E+0 1.0E-2 1.0E+0 1.0E-2	Parameter Toxicity:	Value 1000
SURFACE WATER PATHWAY					
DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
meter city: stance over: ce:	Value 1000 1.0000 1.0000	Parameter Toxicity: Persistence River: Lake:	Value 1000 1.0000 1.0000	Parameter Fresh Tox: Salt Tox:	Value 1000 1000
		Bioaccumulation Fresh: Salt:	5000.0 50000.0	Bioaccumulation Fresh: Salt:	50000.0 50000.0

BENCHMARKS											
AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:		mg/kg	MCL:	6.0E+2	pCi/L
Cancer Risk:		mg/m ³	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m ³	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	2.2E-1	pCi/m ³
									DW:	9.5E+0	pCi/L
									FC:	2.6E+2	pCi/kg
									Soil Ing:	7.0E+4	pCi/kg
									Soil Gam:		pCi/kg
SURFACE WATER PATHWAY											
DRINKING WATER				HUMAN FOOD CHAIN				ENVIRONMENTAL			
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Parameter	Value	Unit	
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE		Fresh CMC:		µg/L	
Cancer Risk:		mg/L	Cancer Risk:		mg/kg		Salt CMC:		µg/L		
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg						
								CHRONIC			
								Fresh CCC:		µg/L	
								Salt CCC:		µg/L	

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Carbazole

CAS Number: 000086-74-8

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	2.0E-2	(mg/kg/day)^-1	HEAST	Gas:	Yes		
Oral Wt-of-Evid:	B2	(mg/kg/day)^-1		Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radiouclide:	No		
Inhal Wt-of-Evid:		mg/kg/day		Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.7E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	1.1E+0	g/mL @ 18.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:	4.0E+2	mg/kg	RTECS				
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	9.3E+2	µg/L	ECOTOX				
Salt Ecol LC50:		µg/L					
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		Vapor Press:	7.0E-4	Torr	CHEMFATE
Volatility:		days		Henry's Law:	8.7E-8	atm-m3/mol	PHYSPROP
Photolysis:		days		Water Solub:	1.2E+0	mg/L	CHEMFATE
Biodeg:		days		Distrib Coef:	5.2E+2	ml/g	DITOR_KD
Radio:		days		Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:		days					
Log Kow:	3.7E+0		CHEMFATE				
CLASS INFORMATION				ENVIRONMENTAL			
Class				Food Chain	Value	Unit	Source
				Fresh BCF:			
				Salt BCF:			
OTHER DATA				Log Kow:	3.7E+0		CHEMFATE
				Water Solub:	1.2E+0		CHEMFATE
				Geo Mean Sol:		mg/L	
				Melting Point:	2.5E+2	C	
				Boiling Point:	3.5E+2	C	
				Formula:	C12 H9 N		

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Carbazole

CAS Number: 000086-74-8

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10	Toxicity:	10	Toxicity:	10
Gas Mobility:	0.0200	Water Solub:	1.2E+0		
Gas Migration:	6	Distrib:	5.2E+2		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-2		
		Non Liq. Karst:	2.0E-1		
		Non Karst:	2.0E-3		

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10	Toxicity:	10	Fresh Tox:	1000
				Salt Tox:	1000
Persistence		Persistence		Persistence	
River:	0.4000	River:	0.4000	River:	0.4000
Lake:	0.0700	Lake:	0.0700	Lake:	0.0700
		Bioaccumulation		Bioaccumulation	
		Fresh:	500.0	Fresh:	500.0
		Salt:	500.0	Salt:	500.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:	3.2E+1	pCi/L
Cancer Risk:		mg/m ³	Cancer Risk:	4.3E-3	mg/L	Non Cancer Risk:		pCi/kg
Non Cancer Risk:		mg/m ³	Non Cancer Risk:		mg/L			
						MCL:		pCi/L
						UMTRCA:		pCi/kg
						CANCER RISK		
						Air:		pCi/m ³
						DW:		pCi/L
						FC:		pCi/kg
						Soil Ing:		pCi/kg
						Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:	4.3E-3	mg/L	Cancer Risk:	1.6E-1	mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Carbon disulfide

CAS Number: 000075-15-0

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>		
Oral RfD:	1.0E-1	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:	2.0E-1	mg/kg/day	IRIS	Organic:	No		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	No		
Inhal Slope:		(mg/kg/day)^-1		Radiouclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	7.6E+1		
Oral ED10 Wgt:				Density:	1.3E+0	g/mL @ 20.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	1.2E+3	mg/kg	RTECS				
Dermal LD50:		mg/kg					
Gas Inhal LC50:	2.0E+3	ppm	RTECS				
Dust Inhal LC50:		mg/L					

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L

Fresh Ecol LC50:	1.9E+3
Salt Ecol LC50:	4.5E+4

ECOTOX
ECOTOX

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:	4.0E+2	days	CHEMFATE
Volatility:	7.7E+1	days	THOMAS
Photolysis:	1.1E+1	days	CHEMFATE
Biodeg:		days	
Radio:		days	
RIVER - Halflives			
Hydrolysis:	4.0E+2	days	CHEMFATE
Volatility:	8.3E-1	days	THOMAS
Photolysis:	1.1E+1	days	CHEMFATE
Biodeg:		days	
Radio:		days	
Log Kow:	2.2E+0		CHEMFATE

MOBILITY			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.6E+2	Torr	CHEMFATE
Henry's Law:	3.0E-2	atm-m3/mol	CHEMFATE
Water Solub:	1.2E+3	mg/L	CHEMFATE
Distrib Coef:	9.1E-2	ml/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:			
Salt BCF:			
Log Kow:	2.2E+0		CHEMFATE
Water Solub:	1.2E+3		CHEMFATE

OTHER DATA			
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Melting Point:	-1.2E+2	C
Boiling Point:	4.6E+1	C
Formula:	C S2	

CLASS INFORMATION			
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Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Carbon disulfide

CAS Number: 000075-15-0

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10	Toxicity:	10	Toxicity:	10
Gas Mobility:	1.0000	Water Solub:	1.2E+3		
Gas Migration:	17	Distrib:	9.1E-2		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10	Toxicity:	10	Fresh Tox:	100
				Salt Tox:	10
Persistence		Persistence		Persistence	
River:	0.4000	River:	0.4000	River:	0.4000
Lake:	0.4000	Lake:	0.4000	Lake:	0.4000
		Bioaccumulation		Bioaccumulation	
		Fresh:	500.0	Fresh:	500.0
		Salt:	500.0	Salt:	500.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIOMUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:	
Cancer Risk:		mg/m ³	Cancer Risk:		mg/L	Non Cancer Risk:	7.8E+3
Non Cancer Risk:	7.3E-1	mg/m ³	Non Cancer Risk:	3.7E+0	mg/L		
						MCL:	
						UMTRCA:	
						CANCER RISK	
						Air:	pCi/m ³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	
MCL/MCLG:		mg/L	FDAAL:		ppm	
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	
Non Cancer Risk:	3.7E+0	mg/L	Non Cancer Risk:	1.4E+2	mg/kg	
					ACUTE	
					Fresh CMC:	
					Salt CMC:	
					CHRONIC	
					Fresh CCC:	
					Salt CCC:	
						µg/L
						µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Carbon tetrachloride

CAS Number: 000056-23-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	7.0E-4	mg/kg/day	IRIS
Inhal RfD:	5.7E-3	mg/kg/day	STSC
Oral Slope:	1.3E-1	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		
Inhal Slope:	5.2E-2	(mg/kg/day)^-1	IRIS
Inhal Wt-of-Evid:	B2		
Oral ED10:	1.7E-2	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		
Inhal ED10:	1.7E-2	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		
Oral LD50:	2.3E+3	mg/kg	ACGIH
Dermal LD50:	1.5E+4	mg/kg	ACGIH
Gas Inhal LC50:	7.3E+3	ppm	ACGIH
Dust Inhal LC50:		mg/L	

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L

Fresh Ecol LC50:	2.0E+3	μg/L	ECOTOX
Salt Ecol LC50:	5.0E+4	μg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:	2.6E+6	days	CHEMFATE
Volatility:	1.1E+2	days	THOMAS
Photolysis:	1.1E+3	days	CHEMFATE
Biodeg:	3.6E+2	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:	2.6E+6	days	CHEMFATE
Volatility:	1.2E+0	days	THOMAS
Photolysis:	1.1E+3	days	CHEMFATE
Biodeg:	3.6E+2	days	FATERATE
Radio:		days	
Log Kow:	2.8E+0		CHEMFATE

CLASS INFORMATION

Class	Parent Substance
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PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>
Metal Contain:	No
Organic:	Yes
Gas:	Yes
Particulate:	No
Radionuclide:	No
Rad. Element:	No
Molecular Weight:	1.5E+2
Density:	1.6E+0 g/mL @ 20.00 C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.2E+2	Torr	CHEMFATE
Henry's Law:	3.0E-2	atm-m3/mol	CHEMFATE
Water Solub:	7.9E+2	mg/L	CHEMFATE
Distrib Coef:	3.5E-1	ml/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	3.0E+1		ECOTOX
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:	3.0E+2		ECOTOX
Salt BCF:			
Log Kow:	2.8E+0		CHEMFATE
Water Solub:	7.9E+2	mg/L	CHEMFATE
Geo Mean Sol:			

OTHER DATA

Melting Point:	-2.3E+1	C
Boiling Point:	7.7E+1	C
Formula:	C Cl4	

REFERENCE 2

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Date: 1/28/2004
 Chemical: Carbon tetrachloride

CAS Number: 000056-23-5

SUPERFUND CHEMICAL DATA MATRIX

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	1000	Toxicity:	1000	Toxicity:	1000
Gas Mobility:	1.0000	Water Solub:	7.9E+2		
Gas Migration:	17	Distrib:	3.5E-1		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	1000	Toxicity:	1000	Fresh Tox:	100
				Salt Tox:	10
Persistence		Persistence		Persistence	
River:	0.4000	River:	0.4000	River:	0.4000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	50.0	Fresh:	500.0
		Salt:	50.0	Salt:	500.0

BENCHMARKS

AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m³	MCL/MCLG:	5.0E-3	mg/L	Cancer Risk:	4.9E+0	mg/kg	MCL:		pCi/L
Cancer Risk:	1.6E-4	mg/m³	Cancer Risk:	6.6E-4	mg/L	Non Cancer Risk:	5.5E+1	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:	2.1E-2	mg/m³	Non Cancer Risk:	2.6E-2	mg/L				CANCER RISK		
									Air:		pCi/m³
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:	5.0E-3	mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:	6.6E-4	mg/L	Cancer Risk:	2.4E-2	mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:	2.6E-2	mg/L	Non Cancer Risk:	9.5E-1	mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Cesium

CAS Number: 007440-46-2

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:				Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:				Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	Yes		
Oral ED10:		mg/kg/day		Molecular Weight:	1.3E+2		
Oral ED10 Wgt:				Density:	1.9E+0	g/mL @	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		μg/L					
Salt CMC:		μg/L					
CHRONIC							
Fresh CCC:		μg/L					
Salt CCC:		μg/L					
Fresh Ecol LC50:		μg/L					
Salt Ecol LC50:		μg/L					
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		Vapor Press:		Torr	
Volatility:		days		Henry's Law:		atm-m ³ /mol	
Photolysis:		days		Water Solub:		mg/L	
Biodeg:		days		Distrib Coef:	1.0E+3	ml/g	BAES_KD
Radio:		days		Geo Mean Sol:	3.4E+5	mg/L	CALC
RIVER - Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:		days					
Log Kow:	2.3E-1		PHYSPROP				
CLASS INFORMATION				ENVIRONMENTAL			
Class	Parent Substance			Fresh BCF:			
				Salt BCF:			
ENVIRONMENTAL							
Log Kow:	2.3E-1		PHYSPROP	Fresh BCF:			
Water Solub:				Salt BCF:			
Geo Mean Sol:	3.4E+5	mg/L					
OTHER DATA				Log Kow:	2.3E-1		PHYSPROP
Parameter	Value	Unit	Source	Water Solub:			
FOOD CHAIN				Geo Mean Sol:	3.4E+5	mg/L	CALC
Fresh BCF:							
Salt BCF:							
OTHER DATA							
Melting Point:	2.9E+1		C				
Boiling Point:	6.7E+2		C				
Formula:	Cs						

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
Chemical: Cesium

CAS Number: 007440-46-2

HRS factor values are assigned to radioactive isotopes but not to radioactive elements. Data for a radioactive element is used to derive factor values for that element's isotopes.

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Cesium 137(+D) (radionuclide)

CAS Number: 010045-97-3

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:	Food: 3.74E-11 Soil: 4.33E-11 Water: 3.04E-11	(pCi) ⁻¹	HEAST	Gas:	No		
Oral Wt-of-Evid:	A			Particulate:	Yes		
Inhal Slope:	1.2E-11	(pCi) ⁻¹	HEAST	Radionuclide:	Yes		
Inhal Wt-of-Evid:	A			Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.4E+2		
Oral ED10 Wgt:		mg/kg/day		Density:			@
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L		Parameter	Value	Unit	Source
Salt CMC:		µg/L		Vapor Press:		Torr	
CHRONIC							
Fresh CCC:		µg/L		Henry's Law:		atm-m ³ /mol	
Salt CCC:		µg/L		Water Solub:		mg/L	
Fresh Ecol LC50:		µg/L		Distrib Coef:	1.0E+3	ml/g	B
Salt Ecol LC50:		µg/L		Geo Mean Sol:	3.4E+5	mg/L	C
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		Vapor Press:		Torr	
Volatility:		days		Henry's Law:		atm-m ³ /mol	
Photolysis:		days		Water Solub:		mg/L	
Biodeg:		days		Distrib Coef:	1.0E+3	ml/g	B
Radio:	1.1E+4	days	SSG-Rad	Geo Mean Sol:	3.4E+5	mg/L	C
RIVER - Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:	1.1E+4	days	SSG-Rad				
Log Kow:	2.3E-1						
Water Solub:							
Geo Mean Sol:	3.4E+5	mg/L					
OTHER DATA				BIOACCUMULATION			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
FOOD CHAIN							
Fresh BCF:	4.0E+0			Vapor Press:		Torr	
Salt BCF:	4.3E+1			Henry's Law:		atm-m ³ /mol	
ENVIRONMENTAL							
Fresh BCF:	4.0E+0			Water Solub:		mg/L	
Salt BCF:	4.3E+1			Geo Mean Sol:	3.4E+5	mg/L	C
Log Kow:	2.3E-1						
Water Solub:							
Geo Mean Sol:	3.4E+5	mg/L					
Melting Point:							
Boiling Point:							
Formula: Cs-137 (+D)							
PHYSPROP				OTHER DATA			
Log Kow:	2.3E-1			Vapor Press:		Torr	
Water Solub:				Henry's Law:		atm-m ³ /mol	
Geo Mean Sol:	3.4E+5	mg/L		Water Solub:		mg/L	
				Geo Mean Sol:	3.4E+5	mg/L	C

Part 2

CLASS INFORMATION

<u>Class</u>	<u>Parent Substance</u>
GW Mob:	007440-46-2
Other:	007440-46-2

REFERENCE 2

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Date: 1/28/2004

CAS Number: 010045-97-3

SUPERFUND CHEMICAL DATA MATRIX

ASSIGNED FACTOR VALUES					
AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:		Water Solub:			
Gas Migration:		Distrib:	1.0E+3		
		Geo Mean Sol:	3.4E+5		
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-2		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E-2		
SURFACE WATER PATHWAY					
DRINKING WATER			HUMAN FOOD CHAIN		
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	10000
Persistence				Salt Tox:	10000
River:	1.0000	Persistence			
Lake:	1.0000	River:	1.0000		
		Lake:	1.0000		
		Bioaccumulation		Bioaccumulation	
		Fresh:	5.0	Fresh:	5.0
		Salt:	50.0	Salt:	50.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE					
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m3	MCL/MCLG:		mg/L	Cancer Risk:		mg/kg	MCL:	2.0E+2	pCi/L
Cancer Risk:		mg/m3	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	4.0E-1	pCi/m3
									DW:	1.6E+0	pCi/L
									FC:	4.7E+1	pCi/kg
									Soil Ing:	1.8E+4	pCi/kg
									Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Chlordane

CAS Number: 000057-74-9

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	5.0E-4	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:	2.0E-4	mg/kg/day	IRIS	Organic:	Yes		
Oral Slope:	3.5E-1	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:	3.5E-1	(mg/kg/day)^-1	IRIS	Radionuclide:	No		
Inhal Wt-of-Evid:	B2			Rad. Element:	No		
Oral ED10:	6.6E-2	mg/kg/day	EPA_ED10	Molecular Weight:	4.1E+2		
Oral ED10 Wgt:	B2			Density:	1.6E+0	g/mL @ 25.00 C	
Inhal ED10:	6.6E-2	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	B2						
Oral LD50:	3.0E+2	mg/kg	ACGIH				
Dermal LD50:	5.9E+2	mg/kg	ACGIH				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:	2.0E+1	mg/L	RTECS				
ACUTE							
Fresh CMC:	2.4E+0	G	μg/L	WATCRIT			
Salt CMC:	9.0E-2	G	μg/L	WATCRIT			
CHRONIC							
Fresh CCC:	4.3E-3	G, aa	μg/L	WATCRIT			
Salt CCC:	4.0E-3	G, aa	μg/L	WATCRIT			
Fresh Ecol LC50:	8.0E-1	μg/L		ECOTOX			
Salt Ecol LC50:	1.8E+0	μg/L		ECOTOX			
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:	6.7E+5	days	CHEMFATE	Vapor Press:	9.8E-6	Torr	CHEMFATE
Volatility:	1.8E+2	days	THOMAS	Henry's Law:	4.9E-5	atm-m3/mol	CHEMFATE
Photolysis:		days		Water Solub:	5.6E-2	mg/L	CHEMFATE
Biodeg:	1.4E+3	days	FATERATE	Distrib Coef:	2.4E+2	ml/g	SSG_KD
Radio:		days		Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:	6.7E+5	days	CHEMFATE				
Volatility:	2.9E+0	days	THOMAS				
Photolysis:		days					
Biodeg:	1.4E+3	days	FATERATE				
Radio:		days					
Log Kow:	5.5E+0		CHEMFATE				
CLASS INFORMATION				BIOACCUMULATION			
Class	Parent Substance			Parameter	Value	Unit	Source
				FOOD CHAIN			
				Fresh BCF:			
				Salt BCF:	7.3E+3		ECOTOX
ENVIRONMENTAL							
				Fresh BCF:	3.8E+4		ECOTOX
				Salt BCF:	7.3E+3		ECOTOX
				Log Kow:	5.5E+0		CHEMFATE
				Water Solub:	5.6E-2		CHEMFATE
				Geo Mean Sol:		mg/L	
OTHER DATA				OTHER DATA			
				Melting Point:	1.1E+2	C	
				Boiling Point:	1.8E+2	C	
				Formula:	C10 H6 Cl8		

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Chlordane

CAS Number: 000057-74-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	10000
Gas Mobility:	0.0020
Gas Migration:	6

Parameter	Value
Toxicity:	10000
Water Solub:	5.6E-2
Distrib:	2.4E+2
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	2.0E-3
Non Karst:	2.0E-5

Parameter	Value
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	10000

Parameter	Value
Toxicity:	10000

Parameter	Value
Fresh Tox:	10000
Salt Tox:	10000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	5000.0
Salt:	5000.0

Bioaccumulation	
Fresh:	50000.0
Salt:	5000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:			MCL/MCLG:	2.0E-3	µg/m3
Cancer Risk:	2.4E-5	mg/m3	Cancer Risk:	2.4E-4	mg/L
Non Cancer Risk:	7.3E-4	mg/m3	Non Cancer Risk:	1.8E-2	mg/L

Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:			MCL/MCLG:	2.0E-3	µg/m3
Cancer Risk:	2.4E-5	mg/m3	Cancer Risk:	2.4E-4	mg/L
Non Cancer Risk:	7.3E-4	mg/m3	Non Cancer Risk:	1.8E-2	mg/L

Parameter	Value	Unit	Parameter	Value	Unit
MCL:		pCi/L	MCL:		pCi/L
UMTRCA:		pCi/kg	UMTRCA:		pCi/kg
CANCER RISK			Air:		pCi/m3
			DW:		pCi/L
			FC:		pCi/kg
			Soil Ing:		pCi/kg
			Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit
MCL/MCLG:	2.0E-3	mg/L
Cancer Risk:	2.4E-4	mg/L
Non Cancer Risk:	1.8E-2	mg/L

Parameter	Value	Unit
FDAAL:	3.0E-1	ppm
Cancer Risk:	9.0E-3	mg/kg
Non Cancer Risk:	6.8E-1	mg/kg

Parameter	Value	Unit
ACUTE		
Fresh CMC:	2.4E+0 G	µg/L
Salt CMC:	9.0E-2 G	µg/L
CHRONIC		
Fresh CCC:	4.3E-3 G, aa	µg/L
Salt CCC:	4.0E-3 G, aa	µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Chlordane, alpha-

CAS Number: 005103-71-9

TOXICITY				PHYSICAL CHARACTERISTICS			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>		
Oral RfD:	5.0E-4	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:	2.0E-4	mg/kg/day	IRIS	Organic:	Yes		
Oral Slope:	3.5E-1	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:	3.5E-1	(mg/kg/day)^-1	IRIS	Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:	6.6E-2	mg/kg/day	EPA_ED10	Molecular Weight:	4.1E+2		
Oral ED10 Wgt:				Density:	g/mL @ C		
Inhal ED10:	6.6E-2	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:							
Oral LD50:	1.3E+2	mg/kg	RTECS				
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	4.3E+0	µg/L	ECOTOX				
Salt Ecol LC50:		µg/L					
PERSISTENCE				MOBILITY			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives							
Hydrolysis:		days					
Volatility:	1.8E+2	days	THOMAS	Fresh BCF:	2.8E+4		ECOTOX
Photolysis:		days		Salt BCF:			
Biodeg:		days					
Radio:		days					
RIVER - Halflives							
Hydrolysis:	6.7E+5	days	CHEMFATE	Log Kow:	5.5E+0		CHEMFATE
Volatility:	2.1E+0	days	THOMAS	Water Solub:	5.6E-2	mg/L	PHYSPROP
Photolysis:		days		Geo Mean Sol:			
Biodeg:		days					
Radio:		days					
Log Kow:	5.5E+0		CHEMFATE				
CLASS INFORMATION							
<u>Class</u>			<u>Parent Substance</u>				
Chlordane:			000057-74-9				
Chlordane, alpha:			000057-74-9				

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Chlordane, alpha-

CAS Number: 005103-71-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Gas Mobility:	0.0200
Gas Migration:	11

GROUND WATER PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Water Solub:	5.6E-2
Distrib:	1.4E+2
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	2.0E-3
Non Karst:	2.0E-5

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

HUMAN FOOD CHAIN

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	10000
Salt Tox:	10000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

BENCHMARKS

AIR PATHWAY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		$\mu\text{g}/\text{m}^3$
Cancer Risk:	2.4E-5	mg/m^3
Non Cancer Risk:	7.3E-4	mg/m^3

GROUND WATER PATHWAY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L
Cancer Risk:	2.4E-4	mg/L
Non Cancer Risk:	1.8E-2	mg/L

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Cancer Risk:	1.8E+0	mg/kg
Non Cancer Risk:	3.9E+1	mg/kg

RADIOMUCLIDE

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m^3
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L
Cancer Risk:	2.4E-4	mg/L
Non Cancer Risk:	1.8E-2	mg/L

HUMAN FOOD CHAIN

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
FDAAL:		ppm
Cancer Risk:	9.0E-3	mg/kg
Non Cancer Risk:	6.8E-1	mg/kg

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:		$\mu\text{g}/\text{L}$
Salt CMC:		$\mu\text{g}/\text{L}$
CHRONIC		
Fresh CCC:		$\mu\text{g}/\text{L}$
Salt CCC:		$\mu\text{g}/\text{L}$

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Chlordane, gama-

CAS Number: 005566-34-7

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value		
Oral RfD:	5.0E-4	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:	2.0E-4	mg/kg/day	IRIS	Organic:	Yes		
Oral Slope:	3.5E-1	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:	3.5E-1	(mg/kg/day)^-1	IRIS	Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:	6.6E-2	mg/kg/day	EPA_ED10	Molecular Weight:	4.1E+2		
Oral ED10 Wgt:				Density:	g/mL @ C		
Inhal ED10:	6.6E-2	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:							
Oral LD50:	5.0E+2	mg/kg	RTECS				
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L		MOBILITY			
Salt CMC:		µg/L		Parameter	Value	Unit	Source
CHRONIC				Vapor Press:	9.8E-6	Torr	CHEMFATE
Fresh CCC:		µg/L		Henry's Law:	4.9E-5	atm·m3/mol	CHEMFATE
Salt CCC:		µg/L		Water Solub:	5.6E-2	mg/L	CHEMFATE
Fresh Ecol LC50:		µg/L		Distrib Coef:	2.8E+2	ml/g	SSG_KD
Salt Ecol LC50:		µg/L		Geo Mean Sol:	mg/L		
PERSISTENCE							
Parameter	Value	Unit	Source	BIOACCUMULATION			
LAKE - Halflives							
Hydrolysis:	6.7E+5	days	CHEMFATE	Parameter	Value	Unit	Source
Volatility:	1.8E+2	days	THOMAS	FOOD CHAIN			
Photolysis:		days		Fresh BCF:	2.0E+4		ECOTOX
Biodeg:	1.4E+3	days	FATERATE	Salt BCF:			
Radio:		days		ENVIRONMENTAL			
RIVER - Halflives							
Hydrolysis:	6.7E+5	days	CHEMFATE	Fresh BCF:	2.0E+4		ECOTOX
Volatility:	2.6E+0	days	THOMAS	Salt BCF:			
Photolysis:		days		Log Kow:	5.5E+0		CHEMFATE
Biodeg:	1.4E+3	days	FATERATE	Water Solub:	5.6E-2	mg/L	CHEMFATE
Radio:		days		Geo Mean Sol:			
Log Kow:	5.5E+0		CHEMFATE	OTHER DATA			
CLASS INFORMATION							
Class		Parent Substance		Melting Point:		C	
Chlordane:		000057-74-9		Boiling Point:		C	
Chlordane, gama:		000057-74-9		Formula:	C10 H6 Cl8		

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/23/2004

Chemical: Chlordane, gama-

CAS Number: 005566-34-7

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:	0.0020	Water Solub:	5.6E-2		
Gas Migration:	6	Distrib:	2.8E+2		
		Geo Mean Sol:			
		Mobility:			
Liquid	Karst:	1.0E+0			
	Non Karst:	1.0E-2			
	Non Liq. Karst:	2.0E-3			
	Non Karst:	2.0E-5			

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	0
				Salt Tox:	0
Persistence		Persistence		Persistence	
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	50000.0	Fresh:	50000.0
		Salt:	50000.0	Salt:	50000.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIOMUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:	1.8E+0
Cancer Risk:	2.4E-5	mg/m ³	Cancer Risk:	2.4E-4	mg/L	Non Cancer Risk:	3.9E+1
Non Cancer Risk:	7.3E-4	mg/m ³	Non Cancer Risk:	1.8E-2	mg/L		
						Parameter	Value
						MCL:	Unit
						UMTRCA:	pCi/L
						CANCER RISK	pCi/kg
						Air:	pCi/m ³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L	FDAAL:		ppm
Cancer Risk:	2.4E-4	mg/L	Cancer Risk:	9.0E-3	mg/kg
Non Cancer Risk:	1.8E-2	mg/L	Non Cancer Risk:	6.8E-1	mg/kg
					Parameter
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:
					µg/L
					µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Chlorobenzene

CAS Number: 000108-90-7

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>		
Oral RfD:	2.0E-2	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:	5.7E-3	mg/kg/day	HEAST	Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	No		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.1E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	1.1E+0	g/mL @ 20.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:	4.0E+2	mg/kg	ACGIH				
Dermal LD50:	1.1E+4	mg/kg	RTECS				
Gas Inhal LC50:	3.0E+3	ppm	RTECS				
Dust Inhal LC50:		mg/L					

ACUTE

Fresh CMC:	$\mu\text{g/L}$
Salt CMC:	$\mu\text{g/L}$

CHRONIC

Fresh CCC:	$\mu\text{g/L}$
Salt CCC:	$\mu\text{g/L}$

Fresh Ecol LC50:	2.0E+1	$\mu\text{g/L}$	ECOTOX
Salt Ecol LC50:	6.9E+3	$\mu\text{g/L}$	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:	3.2E+3	days	CHEMFATE
Volatility:	9.3E+1	days	THOMAS
Photolysis:	4.9E-2	days	CHEMFATE
Biodeg:	1.5E+2	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:	3.2E+3	days	CHEMFATE
Volatility:	1.0E+0	days	THOMAS
Photolysis:	4.9E-2	days	CHEMFATE
Biodeg:	1.5E+2	days	FATERATE
Radio:		days	
Log Kow:	2.8E+0		CHEMFATE

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.2E+1	Torr	CHEMFATE
Henry's Law:	3.7E-3	atm-m ³ /mol	CHEMFATE
Water Solub:	4.7E+2	mg/L	CHEMFATE
Distrib Coef:	4.4E-1	ml/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:	4.2E+3		ECOTOX
Salt BCF:			
Log Kow:	2.8E+0		CHEMFATE
Water Solub:	4.7E+2		CHEMFATE
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-4.5E+1	C
Boiling Point:	1.3E+2	C
Formula:	C ₆ H ₅ Cl	

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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Date: 1/28/2004
 Chemical: Chlorobenzene

CAS Number: 000108-90-7

SUPERFUND CHEMICAL DATA MATRIX

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	100	Toxicity:	100	Toxicity:	100
Gas Mobility:	1.0000	Water Solub:	4.7E+2		
Gas Migration:	17	Distrib:	4.4E-1		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	100	Toxicity:	100	Fresh Tox:	10000
Persistence		Persistence		Salt Tox:	100
River:	0.0007	River:	0.0007		
Lake:	0.0700	Lake:	0.0700		
		Bioaccumulation			
		Fresh:	50.0		
		Salt:	50.0		
				Bioaccumulation	
				Fresh:	5000.0
				Salt:	5000.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value
NAAQS/NESHAPS:		µg/m³	MCL/MCLG:	1.0E-1	mg/L	Cancer Risk:	
Cancer Risk:		mg/m³	Cancer Risk:		mg/L	Non Cancer Risk:	1.6E+3
Non Cancer Risk:	2.1E-2	mg/m³	Non Cancer Risk:	7.3E-1	mg/L	mg/kg	
						MCL:	pCi/L
						UMTRCA:	pCi/kg
						CANCER RISK	
						Air:	pCi/m³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:	1.0E-1	mg/L	FDAAL:		ppm
Cancer Risk:		mg/L	Cancer Risk:		mg/kg
Non Cancer Risk:	7.3E-1	mg/L	Non Cancer Risk:	2.7E+1	mg/kg
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:

REFERENCE 2

Page 84

Date: 1/28/2004
 Chemical: Chloroform

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000067-66-3

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	1.0E-2	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	No		
Inhal Slope:	8.1E-2	(mg/kg/day)^-1	IRIS	Radiouclide:	No		
Inhal Wt-of-Evid:	B2			Rad. Element:	No		
Oral ED10:	5.1E-1	mg/kg/day	EPA_ED10	Molecular Weight:	1.2E+2		
Oral ED10 Wgt:	B2			Density:	1.5E+0	g/mL @ 20.00 C	
Inhal ED10:	5.1E-1	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	B2						
Oral LD50:	3.6E+1	mg/kg	RTECS				
Dermal LD50:	2.0E+4	mg/kg	RTECS				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:	4.9E+4	mg/L	RTECS				
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	8.5E+3	µg/L	ECOTOX				
Salt Ecol LC50:	2.8E+4	µg/L	ECOTOX				
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:	1.3E+6	days	CHEMFATE	Vapor Press:	2.0E+2	Torr	CHEMFATE
Volatility:	9.6E+1	days	THOMAS	Henry's Law:	3.7E-3	atm-m3/mol	CHEMFATE
Photolysis:	1.6E+2	days	CHEMFATE	Water Solub:	7.9E+3	mg/L	CHEMFATE
Biodeg:	1.8E+2	days	FATERATE	Distrib Coef:	8.0E-2	ml/g	SSG_KD
Radio:		days		Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:	1.3E+6	days	CHEMFATE				
Volatility:	1.0E+0	days	THOMAS				
Photolysis:	1.6E+2	days	CHEMFATE				
Biodeg:	1.8E+2	days	FATERATE				
Radio:		days					
Log Kow:	2.0E+0		CHEMFATE				
CLASS INFORMATION							
<u>Class</u>				<u>Parent Substance</u>			

REFERENCE 2

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Date: 1/28/2004
Chemical: Chloroform

CAS Number: 000067-66-3

SUPERFUND CHEMICAL DATA MATRIX

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Chromium

CAS Number: 007440-47-3

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	3.0E-3	mg/kg/day	IRIS	Metal Contain:	Yes		
Inhal RfD:	2.3E-6	mg/kg/day	IRIS	Organic:	No		
Oral Slope:		(mg/kg/day)^-1		Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	5.2E+1		
Oral ED10 Wgt:				Density:	7.2E+0	g/mL, @	C
Inhal ED10:	2.6E-3	mg/kg/day	SPHEM				
Inhal ED10 Wgt:	A						
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	2.2E+1	µg/L	ECOTOX				
Salt Ecol LC50:	1.0E+3	µg/L	ECOTOX				
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		Vapor Press:		Torr	
Volatility:		days		Henry's Law:		atm-m ³ /mol	
Photolysis:		days		Water Solub:		mg/L	
Biodeg:		days		Distrib Coef:	1.9E+1	ml/g	SSG_KD
Radio:		days		Geo Mean Sol:	6.0E+5	mg/L	CALC
RIVER - Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:		days					
Log Kow:	2.3E-1		PHYSPROP				
CLASS INFORMATION				ENVIRONMENTAL			
Class	Parent Substance			Food Chain	Value	Unit	Source
Chromium:	018540-29-9			Fresh BCF:	1.2E+2		LIVECHEM
				Salt BCF:	1.9E+2		LIVECHEM
				Log Kow:	2.3E-1		PHYSPROP
				Water Solub:			
				Geo Mean Sol:	6.0E+5	mg/L	CALC
OTHER DATA				Melting Point:	1.9E+3	C	
				Boiling Point:	2.7E+3	C	
				Formula:	Cr		

REFERENCE 2

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Date: 1/28/2004
 Chemical: Chromium

CAS Number: 007440-47-3

SUPERFUND CHEMICAL DATA MATRIX

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:		Water Solub:			
Gas Migration:		Distrib:	1.9E+1		
		Geo Mean Sol:	6.0E+5		
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-2		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E-2		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	10000
Persistence		Persistence		Salt Tox:	100
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	500.0	Fresh:	500.0
		Salt:	500.0	Salt:	500.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIOMUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:	1.0E-1	mg/L	Cancer Risk:	
Cancer Risk:		mg/m ³	Cancer Risk:		mg/L	Non Cancer Risk:	2.3E+2
Non Cancer Risk:	8.3E-6	mg/m ³	Non Cancer Risk:	1.1E-1	mg/L		
						Parameter	<u>Value</u>
						MCL:	Unit
						UMTRCA:	pCi/L
						CANCER RISK	pCi/kg
						Air:	pCi/m ³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:	1.0E-1	mg/L	Parameter	Value	
Cancer Risk:		mg/L	FDAAL:		ppm
Non Cancer Risk:	1.1E-1	mg/L	Cancer Risk:		mg/kg
			Non Cancer Risk:	4.1E+0	mg/kg
					Parameter
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:

REFERENCE 2

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Date: 1/28/2004
 Chemical: Chromium(III)

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 016065-83-1

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	1.5E+0	mg/kg/day	IRIS	Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:		(mg/kg/day)^-1		Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	5.2E+1		
Oral ED10 Wgt:		mg/kg/day		Density:	7.1E+0	g/mL @ 7.10	C
Inhal ED10:							
Inhal ED10 Wgt:							
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE				MOBILITY			
Fresh CMC:	5.7E+2	D, E, K	µg/L	Parameter	Value	Unit	Source
Salt CMC:			µg/L	Vapor Press:		Torr	
				Henry's Law:		atm-m ³ /mol	
				Water Solub:		mg/L	
				Distrib Coef:	1.8E+6	ml/g	SSG_KD
				Geo Mean Sol:	6.0E+5	mg/L	CALC
CHRONIC				BIOACCUMULATION			
Fresh CCC:	7.4E+1	D, E, K	µg/L	Parameter	Value	Unit	Source
Salt CCC:			µg/L	FOOD CHAIN			
				Fresh BCF:			
				Salt BCF:	1.2E+2		VER_BCF
PERSISTENCE				ENVIRONMENTAL			
Parameter	Value	Unit	Source	Fresh BCF:			
LAKE - Halflives				Salt BCF:	1.5E+2		VER_BCF
Hydrolysis:		days		Log Kow:			
Volatility:		days		Water Solub:			
Photolysis:		days		Geo Mean Sol:	6.0E+5	mg/L	CALC
Biodeg:		days					
Radio:		days					
RIVER - Halflives				OTHER DATA			
Hydrolysis:		days		Melting Point:	1.9E+3	C	
Volatility:		days		Boiling Point:	2.6E+3	C	
Photolysis:		days		Formula:	Cr(3+)		
Biodeg:		days					
Radio:		days					

Log Kow:

CLASS INFORMATION

Class	Parent Substance
-------	------------------

REFERENCE 2

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Date: 1/28/2004
 Chemical: Chromium(III)

CAS Number: 016065-83-1

SUPERFUND CHEMICAL DATA MATRIX

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter Value

Toxicity: 1
 Gas Mobility:
 Gas Migration:

Parameter Value

Toxicity: 1
 Water Solub:
 Distrib: 1.8E+6
 Geo Mean Sol: 6.0E+5
 Mobility:
 Liquid Karst: 1.0E+0
 Non Karst: 1.0E-4
 Non Liq. Karst: 1.0E+0
 Non Karst: 1.0E-4

Parameter Value

Toxicity: 1

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value

Toxicity: 1

Parameter Value

Toxicity: 1

Parameter Value

Fresh Tox: 100

Persistence
 River: 1.0000
 Lake: 1.0000

Persistence
 River: 1.0000
 Lake: 1.0000

Persistence
 River: 1.0000
 Lake: 1.0000

Bioaccumulation

Fresh: 500.0
 Salt: 500.0

Bioaccumulation

Fresh: 500.0
 Salt: 500.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter Value

NAAQS/NESHAPS:

Unit

$\mu\text{g}/\text{m}^3$

Parameter Value

MCL/MCLG:

Unit

mg/L

Parameter Value

Cancer Risk:

Unit

mg/kg

Cancer Risk:
 Non Cancer Risk:

mg/m3

Non Cancer Risk: 5.5E+1

mg/L

Non Cancer Risk: 1.2E+5

mg/kg

UMTRCA: CANCER RISK

Air: pCi/m³
 DW: pCi/L
 FC: pCi/kg

Soil Ing: pCi/kg
 Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value

MCL/MCLG:

Unit

mg/L

Parameter Value

FDAAL:

Unit

ppm

Parameter Value

ACUTE

Fresh CMC: 5.7E+2 D, E, K

Unit

$\mu\text{g}/\text{L}$

Cancer Risk:
 Non Cancer Risk: 5.5E+1

mg/L

Cancer Risk:
 Non Cancer Risk: 2.0E+3

mg/kg

mg/kg

Parameter

Salt CMC:

Unit

$\mu\text{g}/\text{L}$

CHRONIC

Fresh CCC: 7.4E+1 D, E, K

Unit

$\mu\text{g}/\text{L}$

Salt CCC:

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Chromium(VI)

CAS Number: 018540-29-9

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	3.0E-3	mg/kg/day	IRIS	Metal Contain:	Yes		
Inhal RfD:	2.3E-6	mg/kg/day	IRIS	Organic:	No		
Oral Slope:		(mg/kg/day)^-1		Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:	4.2E+1	(mg/kg/day)^-1	IRIS	Radionuclide:	No		
Inhal Wt-of-Evid:	A			Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	5.2E+1		
Oral ED10 Wgt:				Density:	7.1E+0	g/mL @ 7.10	C
Inhal ED10:	2.6E-3	mg/kg/day	SPHEM				
Inhal ED10 Wgt:	A						
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:	1.6E+1	D, K	μg/L	WATCRIT			
Salt CMC:	1.1E+3	D, bb	μg/L	WATCRIT			
CHRONIC							
Fresh CCC:	1.1E+1	D, K	μg/L	WATCRIT			
Salt CCC:	5.0E+1	D, bb	μg/L	WATCRIT			
Fresh Ecol LC50:		μg/L					
Salt Ecol LC50:		μg/L					
PERSISTENCE							
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		Log Kow:			
Volatility:		days		Water Solub:			
Photolysis:		days		Geo Mean Sol:	6.0E+5	mg/L	CALC
Biodeg:		days					
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days		Melting Point:	1.9E+3	C	
Volatility:		days		Boiling Point:	2.6E+3	C	
Photolysis:		days		Formula:	Cr(6+)		
Biodeg:		days					
Radio:		days					
Log Kow:							
CLASS INFORMATION							
Class		Parent Substance					

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Chromium(VI)

CAS Number: 018540-29-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Gas Mobility:	
Gas Migration:	

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Water Solub:	
Distrib:	1.9E+1
Geo Mean Sol:	6.0E+5
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E-2

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	100
Salt Tox:	100

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	5.0
Salt:	500.0

Bioaccumulation	
Fresh:	5.0
Salt:	500.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:	
Cancer Risk:	2.0E-7
Non Cancer Risk:	8.3E-6

<u>Parameter</u>	<u>Value</u>
Unit	
µg/m ³	MCL/MCLG:
mg/m ³	Cancer Risk:
mg/m ³	Non Cancer Risk: 1.1E-1

<u>Parameter</u>	<u>Value</u>
Unit	
mg/L	Cancer Risk:
mg/L	Non Cancer Risk: 2.3E+2
mg/L	

<u>Parameter</u>	<u>Value</u>
Unit	
MCL:	pCi/L
UMTRCA:	pCi/kg
CANCER RISK	
Air:	pCi/m ³
DW:	pCi/L
FC:	pCi/kg
Soil Ing:	pCi/kg
Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	
Cancer Risk:	
Non Cancer Risk:	1.1E-1

<u>Parameter</u>	<u>Value</u>
Unit	
mg/L	FDAAL:
mg/L	Cancer Risk:
mg/L	Non Cancer Risk: 4.1E+0

<u>Parameter</u>	<u>Value</u>
Unit	
ACUTE	
Fresh CMC:	1.6E+1 D, K
Salt CMC:	1.1E+3 D, bb

<u>Parameter</u>	<u>Value</u>
Unit	
Fresh CCC:	1.1E+1 D, K
Salt CCC:	5.0E+1 D, bb

<u>Parameter</u>	<u>Value</u>
CHRONIC	
Fresh CCC:	1.1E+1 D, K
Salt CCC:	5.0E+1 D, bb

<u>Parameter</u>	<u>Value</u>
Unit	
Fresh CCC:	1.1E+1 D, K
Salt CCC:	5.0E+1 D, bb

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Chrysene

CAS Number: 000218-01-9

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	7.3E-3	(mg/kg/day)^-1	LIVECHEM	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	2.3E+2		
Oral ED10 Wgt:				Density:	1.3E+0	g/mL @ 20.00 C	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:		µg/L					
Salt Ecol LC50:	1.0E+3	µg/L	ECOTOX				
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		Vapor Press:	6.2E-9	Torr	CHEMFATE
Volatility:	1.4E+2	days	THOMAS	Henry's Law:	9.5E-5	atm-m3/mol	CHEMFATE
Photolysis:	1.8E-1	days	CHEMFATE	Water Solub:	6.3E-3	mg/L	CHEMFATE
Biodeg:	1.0E+3	days	FATERATE	Distrib Coef:	6.0E+4	ml/g	DITOR_KD
Radio:		days		Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	8.5E+0	days	THOMAS				
Photolysis:	1.8E-1	days	CHEMFATE				
Biodeg:	1.0E+3	days	FATERATE				
Radio:		days					
Log Kow:	5.7E+0		CHEMFATE				
CLASS INFORMATION				BIOACCUMULATION			
Class	Parent Substance			Parameter	Value	Unit	Source
				FOOD CHAIN			
				Fresh BCF:			
				Salt BCF:	8.2E+0		ECOTOX
ENVIRONMENTAL							
				Fresh BCF:	6.1E+3		ECOTOX
				Salt BCF:	6.5E+2		ECOTOX
				Log Kow:	5.7E+0		CHEMFATE
				Water Solub:	6.3E-3		CHEMFATE
				Geo Mean Sol:		mg/L	
OTHER DATA							
				Melting Point:	2.6E+2	C	
				Boiling Point:	4.5E+2	C	
				Formula:	C18 H12		

REFERENCE 2

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Date: 1/28/2004
 Chemical: Chrysene

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000218-01-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	10
Gas Mobility:	0.0002
Gas Migration:	6

Parameter	Value
Toxicity:	10
Water Solub:	6.3E-3
Distrib:	6.0E+4
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	2.0E-5
Non Karst:	2.0E-9

Parameter	Value
Toxicity:	10

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	10

Parameter	Value
Toxicity:	10

Parameter	Value
Fresh Tox:	1000
Salt Tox:	1000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	5.0
Salt:	5.0

Bioaccumulation	
Fresh:	5000.0
Salt:	500.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value
NAAQS/NESHAPS:	
Cancer Risk:	
Non Cancer Risk:	

Unit	
$\mu\text{g}/\text{m}^3$	
mg/m ³	
mg/m ³	

Parameter	Value
MCL/MCLG:	
Cancer Risk:	1.2E-2
Non Cancer Risk:	

Unit	
mg/L	
mg/L	
mg/L	

Parameter	Value
Cancer Risk:	
Non Cancer Risk:	

Unit	
mg/L	
mg/L	
mg/L	

Parameter	Value
Cancer Risk:	8.8E+1
Non Cancer Risk:	

Parameter	Value
MCL:	
UMTRCA:	
CANCER RISK	
Air:	pCi/m ³
DW:	pCi/L
FC:	pCi/kg
Soil Ing:	pCi/kg
Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
MCL/MCLG:	
Cancer Risk:	1.2E-2
Non Cancer Risk:	

Unit	
mg/L	
mg/L	
mg/L	

Parameter	Value
FDAAL:	
Cancer Risk:	4.3E-1
Non Cancer Risk:	

Unit	
ppm	
mg/kg	
mg/kg	

Parameter	Value
ACUTE	
Fresh CMC:	
Salt CMC:	

CHRONIC	
Fresh CCC:	$\mu\text{g}/\text{L}$
Salt CCC:	$\mu\text{g}/\text{L}$

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
Chemical: Cobalt

CAS Number: 007440-48-4

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:		(mg/kg/day)^-1		Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	5.9E+1		
Oral ED10 Wgt:				Density:	8.9E+0	g/mL @	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	1.0E+2	mg/kg	ACGIH				
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L		Vapor Press:		Torr	
Salt CMC:		µg/L		Henry's Law:		atm-m3/mol	
CHRONIC							
Fresh CCC:		µg/L		Water Solub:		mg/L	
Salt CCC:		µg/L		Distrib Coef:	4.5E+1	ml/g	BAES_KD
Fresh Ecol LC50:		µg/L		Geo Mean Sol:	1.7E+3	mg/L	CALC
Salt Ecol LC50:		µg/L					
PERSISTENCE							
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		FOOD CHAIN			
Volatility:		days		Fresh BCF:			
Photolysis:		days		Salt BCF:	2.5E+3		ECOTOX
Biodeg:		days					
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days		ENVIRONMENTAL			
Volatility:		days		Fresh BCF:			
Photolysis:		days		Salt BCF:	2.5E+3		ECOTOX
Biodeg:		days					
Radio:		days					
Log Kow:	2.3E-1			Log Kow:	2.3E-1		PHYSPROP
Water Solub:				Water Solub:			
Geo Mean Sol:	1.7E+3	mg/L		Geo Mean Sol:	1.7E+3	mg/L	CALC
OTHER DATA							
Melting Point:	1.5E+3			Melting Point:	1.5E+3	C	
Boiling Point:	2.9E+3			Boiling Point:	2.9E+3	C	
Formula:	Co			Formula:	Co		

CLASS INFORMATION

Class

Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Cobalt

CAS Number: 007440-48-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10
Gas Mobility:	
Gas Migration:	

<u>Parameter</u>	<u>Value</u>
Toxicity:	10
Water Solub:	
Distrib:	4.5E+1
Geo Mean Sol:	1.7E+3
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E-2

<u>Parameter</u>	<u>Value</u>
Toxicity:	10

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	10

<u>Parameter</u>	<u>Value</u>
Toxicity:	10

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	0
Salt Tox:	0

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	5000.0
Salt:	5000.0

Bioaccumulation	
Fresh:	5000.0
Salt:	5000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:	
Cancer Risk:	
Non Cancer Risk:	

<u>Parameter</u>	<u>Value</u>
µg/m ³	MCL/MCLG:
mg/m ³	Cancer Risk:
mg/m ³	Non Cancer Risk:

<u>Parameter</u>	<u>Value</u>
Unit	mg/L
Cancer Risk:	mg/L
Non Cancer Risk:	mg/L

<u>Parameter</u>	<u>Value</u>
Unit	mg/kg
MCL:	
UMTRCA:	
CANCER RISK	
Air:	pCi/m ³
DW:	pCi/L
FC:	pCi/kg
Soil Ing:	pCi/kg
Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	
Cancer Risk:	
Non Cancer Risk:	

<u>Parameter</u>	<u>Value</u>
Unit	mg/L
FDAAL:	
Cancer Risk:	
Non Cancer Risk:	

<u>Parameter</u>	<u>Value</u>
Unit	ppm
ACUTE	
Fresh CMC:	
Salt CMC:	

CHRONIC	
Fresh CCC:	µg/L
Salt CCC:	µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Cobalt 57 (radionuclide)

CAS Number: 013981-50-5

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>
Oral RfD:		mg/kg/day		Metal Contain:	Yes
Inhal RfD:		mg/kg/day		Organic:	No
Oral Slope:	Food: 1.49E-12 Soil: 2.78E-12 Water: 1.04E-12	(pCi) ⁻¹	HEAST	Gas:	No
Oral Wt-of-Evid:	A	(pCi) ⁻¹	HEAST	Particulate:	Yes
Inhal Slope:	2.1E-12	(pCi) ⁻¹	HEAST	Radionuclide:	Yes
Inhal Wt-of-Evid:	A			Rad. Element:	No
Oral ED10:		mg/kg/day		Molecular Weight:	5.7E+1
Oral ED10 Wgt:		mg/kg/day		Density:	8.9E+0 g/mL @ C
Inhal ED10:		mg/kg/day			
Inhal ED10 Wgt:		mg/kg/day			
Oral LD50:		mg/kg			
Dermal LD50:		mg/kg			
Gas Inhal LC50:		ppm			
Dust Inhal LC50:		mg/L			
ACUTE					
Fresh CMC:		µg/L			
Salt CMC:		µg/L			

CHRONIC				MOBILITY			
Fresh CCC:		µg/L		Vapor Press:		Unit	
Salt CCC:		µg/L		Henry's Law:		Torr	
Fresh Ecol LC50:		µg/L		Water Solub:		atm-m ³ /mol	
Salt Ecol LC50:		µg/L		Distrib Coef:	4.5E+1	mg/L	
				Geo Mean Sol:	1.7E+3	ml/g	BAES_KD
						mg/L	CALC

PERSISTENCE				BIOACCUMULATION			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives				FOOD CHAIN			
Hydrolysis:		days		Fresh BCF:			
Volatility:		days		Salt BCF:	2.5E+3		
Photolysis:		days					ECOTOX
Biodeg:		days					
Radio:	2.6E+2	days	SSG-Rad				

RIVER - Halflives				ENVIRONMENTAL			
Hydrolysis:		days		Fresh BCF:			
Volatility:		days		Salt BCF:	2.5E+3		
Photolysis:		days					ECOTOX
Biodeg:		days					
Radio:	2.6E+2	days	SSG-Rad				
Log Kow:	2.3E-1		PHYSPROP				

CLASS INFORMATION			
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<u>Class</u>	<u>Parent Substance</u>
GW Mob:	007440-48-4
Other:	007440-48-4

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Cobalt 57 (radionuclide)

CAS Number: 013981-50-5

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	100
Gas Mobility:	
Gas Migration:	

Parameter	Value
Toxicity:	100
Water Solub:	
Distrib:	4.5E+1
Geo Mean Sol:	1.7E+3
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E-2

Parameter	Value
Toxicity:	100

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	100

Parameter	Value
Toxicity:	100

Parameter	Value
Fresh Tox:	100
Salt Tox:	100

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	5000.0
Salt:	5000.0

Bioaccumulation	
Fresh:	5000.0
Salt:	5000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter	Value	Unit
NAAQS/NESHAPS:		$\mu\text{g}/\text{m}^3$
Cancer Risk:		mg/m^3
Non Cancer Risk:		mg/m^3

Parameter	Value	Unit
MCL/MCLG:		MCL/MCLG:
Cancer Risk:		Cancer Risk:
Non Cancer Risk:		Non Cancer Risk:

Parameter	Value	Unit
		mg/L
		mg/L
		mg/L

Parameter	Value	Unit
MCL:	1.0E+3	pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:	2.3E+0	pCi/m^3
DW:	4.6E+1	pCi/L
FC:	1.2E+3	pCi/kg
Soil Ing:	2.9E+5	pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit
MCL/MCLG:		mg/L
Cancer Risk:		mg/L
Non Cancer Risk:		mg/L

Parameter	Value	Unit
FDAAL:		ppm
Cancer Risk:		mg/kg
Non Cancer Risk:		mg/kg

Parameter	Value	Unit
ACUTE		
Fresh CMC:		$\mu\text{g}/\text{L}$

CHRONIC		
Fresh CCC:		$\mu\text{g}/\text{L}$
Salt CCC:		$\mu\text{g}/\text{L}$

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Cobalt 60 (radionuclide)

CAS Number: 010198-40-0

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:	Food: 2.23E-11 Soil: 4.03E-11 Water: 1.57E-11	(pCi)^-1	HEAST	Gas:	No		
Oral Wt-of-Evid:	A	(pCi)^-1	HEAST	Particulate:	Yes		
Inhal Slope:	3.6E-11	(pCi)^-1	HEAST	Radionuclide:	Yes		
Inhal Wt-of-Evid:	A	(pCi)^-1	HEAST	Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	6.0E+1		
Oral ED10 Wgt:		mg/kg/day		Density:	8.9E+0	g/mL @	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:		µg/L					
Salt Ecol LC50:		µg/L					

MOBILITY			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	4.5E+1	ml/g	BAES_KD
Geo Mean Sol:	1.7E+3	mg/L	CALC

BIOACCUMULATION			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:	2.5E+3		ECOTOX

ENVIRONMENTAL

Fresh BCF:			
Salt BCF:	2.5E+3		ECOTOX

OTHER DATA			
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Melting Point:	1.5E+3	C
Boiling Point:	3.1E+3	C
Formula:	Co-60	

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.8E+3	days	SSG-Rad

RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.8E+3	days	SSG-Rad

Log Kow: 2.3E-1 PHYSPROP

CLASS INFORMATION			
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<u>Class</u>	<u>Parent Substance</u>
GW Mob:	007440-48-4
Other:	007440-48-4

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Cobalt 60 (radionuclide)

CAS Number: 010198-40-0

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	10000
Gas Mobility:	
Gas Migration:	

Parameter	Value
Toxicity:	10000
Water Solub:	
Distrib:	4.5E+1
Geo Mean Sol:	1.7E+3
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E-2

Parameter	Value
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	10000

Parameter	Value
Toxicity:	10000

Parameter	Value
Fresh Tox:	10000
Salt Tox:	10000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	5000.0
Salt:	5000.0

Bioaccumulation	
Fresh:	5000.0
Salt:	5000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter	Value	Unit
NAAQS/NESHAPS:		$\mu\text{g}/\text{m}^3$
Cancer Risk:		mg/m^3
Non Cancer Risk:		mg/m^3

Parameter	Value	Unit
MCL/MCLG:		MCL/MCLG:
Cancer Risk:		Cancer Risk:
Non Cancer Risk:		Non Cancer Risk:

Parameter	Value	Unit
Cancer Risk:		mg/L
Non Cancer Risk:		mg/L

Parameter	Value	Unit
MCL:	1.0E+2	pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:	1.3E-1	pCi/m^3
DW:	3.0E+0	pCi/L
FC:	7.9E+1	pCi/kg
Soil Ing:	2.0E+4	pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit
MCL/MCLG:		mg/L
Cancer Risk:		mg/L
Non Cancer Risk:		mg/L

Parameter	Value	Unit
FDAAL:		ppm
Cancer Risk:		mg/kg
Non Cancer Risk:		mg/kg

Parameter	Value	Unit
ACUTE		
Fresh CMC:		$\mu\text{g}/\text{L}$
Salt CMC:		$\mu\text{g}/\text{L}$
CHRONIC		
Fresh CCC:		$\mu\text{g}/\text{L}$
Salt CCC:		$\mu\text{g}/\text{L}$

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Copper

CAS Number: 007440-50-8

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:		(mg/kg/day)^-1		Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	6.4E+1		
Oral ED10 Wgt:				Density:	9.0E+0	g/mL @	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:	1.3E+1	D, E, K, cc	µg/L	WATCRIT			
Salt CMC:	4.8E+0	D, cc, ff	µg/L	WATCRIT			
CHRONIC							
Fresh CCC:	9.0E+0	D, E, K, cc	µg/L	WATCRIT			
Salt CCC:	3.1E+0	D, cc, ff	µg/L	WATCRIT			
Fresh Ecol LC50:	1.6E-1		µg/L	ECOTOX			
Salt Ecol LC50:	1.5E+0		µg/L	ECOTOX			

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	-5.7E-1		PHYSPROP
ENVIRONMENTAL			
Fresh BCF:	1.1E+2		ECOTOX
Salt BCF:	5.1E+5		ECOTOX
Log Kow:	-5.7E-1		PHYSPROP
Water Solub:			
Geo Mean Sol:	5.7E+2	mg/L	CALC
OTHER DATA			
Melting Point:	1.1E+3		C
Boiling Point:	2.6E+3		C
Formula:	Cu		

Log Kow: -5.7E-1

CLASS INFORMATION	
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Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
Chemical: Copper

CAS Number: 007440-50-8

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter Value

Toxicity: 0
Gas Mobility:
Gas Migration:

Parameter Value

Toxicity: 0
Water Solub:
Distrib: 4.3E+2
Geo Mean Sol: 5.7E+2
Mobility:
Liquid Karst: 1.0E+0
Non Karst: 1.0E-2
Non Liq. Karst: 1.0E+0
Non Karst: 1.0E-2

Parameter Value

Toxicity: 0

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value

Toxicity: 0

Parameter Value

Toxicity: 0

Parameter Value

Fresh Tox: 1000
Salt Tox: 1000

Persistence
River: 1.0000
Lake: 1.0000

Persistence
River: 1.0000
Lake: 1.0000

Persistence
River: 1.0000
Lake: 1.0000

Bioaccumulation
Fresh: 500.0
Salt: 50000.0

Bioaccumulation
Fresh: 5000.0
Salt: 50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter Value

NAAQS/NESHAPS:
Cancer Risk:
Non Cancer Risk:

Unit

$\mu\text{g}/\text{m}^3$
 mg/m^3
 mg/m^3

Parameter

MCL/MCLG:
Cancer Risk:
Non Cancer Risk:

Value

1.3E+0
Cancer Risk:
Non Cancer Risk:

Unit

mg/L
 mg/L
 mg/L

Parameter

Cancer Risk:
Non Cancer Risk:

Value

1.3E+0
Non Cancer Risk:

Parameter

MCL:
UMTRCA:
CANCER RISK

Unit

pCi/L
 pCi/kg
 pCi/m^3

Air: pCi/m^3
DW: pCi/L
FC: pCi/kg
Soil Ing: pCi/kg
Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value

MCL/MCLG: 1.3E+0
Cancer Risk:
Non Cancer Risk:

Unit

mg/L
 mg/L
 mg/L

Parameter

FDAAL:
Cancer Risk:
Non Cancer Risk:

Unit

ppm
 mg/kg
 mg/kg

Parameter

ACUTE
Fresh CMC: 1.3E+1 D, E, K, cc
Salt CMC: 4.8E+0 D, cc, ff

Unit

$\text{D}, \text{E}, \text{K}, \text{cc}$
 $\text{D}, \text{cc}, \text{ff}$
 $\mu\text{g}/\text{L}$

CHRONIC

Fresh CCC: 9.0E+0 D, E, K, cc
Salt CCC: 3.1E+0 D, cc, ff

$\mu\text{g}/\text{L}$

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Cumene

CAS Number: 000098-82-8

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	1.0E-1	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:	1.1E-1	mg/kg/day	IRIS	Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	No		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.2E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	8.6E-1	g/mL @ 20.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:	1.4E+3	mg/kg	ACGIH				
Dermal LD50:	3.2E+3	mg/kg	ACGIH				
Gas Inhal LC50:	2.0E+3	ppm	ACGIH				
Dust Inhal LC50:	8.3E+0	mg/L	RTECS				
ACUTE							
Fresh CMC:		µg/L		MOBILITY			
Salt CMC:		µg/L		Parameter	Value	Unit	Source
				Vapor Press:	4.5E+0	Torr	CHEMFATE
				Henry's Law:	1.2E+0	atm-m3/mol	CHEMFATE
				Water Solub:	6.1E+1	mg/L	CHEMFATE
				Distrib Coef:	6.0E+2	ml/g	DITOR_KD
				Geo Mean Sol:		mg/L	
CHRONIC							
Fresh CCC:		µg/L		BIOACCUMULATION			
Salt CCC:		µg/L		Parameter	Value	Unit	Source
				FOOD CHAIN			
				Fresh BCF:			
				Salt BCF:			
PERSISTENCE							
Parameter	Value	Unit	Source	ENVIRONMENTAL			
LAKE - Halflives				Fresh BCF:			
Hydrolysis:		days		Salt BCF:			
Volatility:	9.6E+1	days	THOMAS				
Photolysis:		days					
Biodeg:	1.9E+1	days	CHEMFATE				
Radio:		days					
				Log Kow:	3.7E+0		CHEMFATE
				Water Solub:	6.1E+1		CHEMFATE
				Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	1.0E+0	days	THOMAS				
Photolysis:		days					
Biodeg:	1.9E+1	days	CHEMFATE				
Radio:		days					
Log Kow:	3.7E+0		CHEMFATE				
CLASS INFORMATION							
Class	Parent Substance						

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Cumene

CAS Number: 000098-82-8

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10
Gas Mobility:	1.0000
Gas Migration:	17

<u>Parameter</u>	<u>Value</u>
Toxicity:	10
Water Solub:	6.1E+1
Distrib:	6.0E+2
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	2.0E-1
Non Karst:	2.0E-3

<u>Parameter</u>	<u>Value</u>
Toxicity:	10

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	10

<u>Parameter</u>	<u>Value</u>
Toxicity:	10

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	100
Salt Tox:	1

Persistence	
River:	0.4000
Lake:	0.4000

Persistence	
River:	0.4000
Lake:	0.4000

Persistence	
River:	0.4000
Lake:	0.4000

Bioaccumulation

Fresh:	500.0
Salt:	500.0

Bioaccumulation	
Fresh:	500.0
Salt:	500.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:	
Cancer Risk:	
Non Cancer Risk:	4.2E-1

<u>Parameter</u>	<u>Value</u>
Unit	
µg/m ³	MCL/MCLG:
mg/m ³	Cancer Risk:
mg/m ³	Non Cancer Risk: 3.7E+0

<u>Parameter</u>	<u>Value</u>
Unit	
mg/L	Cancer Risk:
mg/L	Non Cancer Risk: 7.8E+3
mg/L	

<u>Parameter</u>	<u>Value</u>
Unit	
MCL:	pCi/L
UMTRCA:	pCi/kg
CANCER RISK	
Air:	pCi/m ³
DW:	pCi/L
FC:	pCi/kg
Soil Ing:	pCi/kg
Soil Gnm:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	
Cancer Risk:	
Non Cancer Risk:	3.7E+0

<u>Parameter</u>	<u>Value</u>
Unit	
mg/L	FDAAL:
mg/L	Cancer Risk:
mg/L	Non Cancer Risk: 1.4E+2

<u>Parameter</u>	<u>Value</u>
Unit	
ACUTE	
Fresh CMC:	µg/L
Salt CMC:	µg/L
CHRONIC	
Fresh CCC:	µg/L
Salt CCC:	µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Cyanamide

CAS Number: 000420-04-2

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radiouclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	4.2E+1		
Oral ED10 Wgt:		mg/kg/day		Density:	1.3E+0	g/mL @ 20.00 C	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:	1.3E+2	mg/kg	ACGIH				
Dermal LD50:	5.9E+2	mg/kg	RTECS				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	8.8E+4	µg/L	ECOTOX				
Salt Ecol LC50:	6.3E+3	µg/L	ECOTOX				
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		Vapor Press:	3.7E-3	Torr	PHYSPROP
Volatility:		days		Henry's Law:	2.6E-10	atm-m3/mol	PHYSPROP
Photolysis:		days		Water Solub:	5.0E+5	mg/L	PHYSPROP
Biodeg:	2.8E+1	days	FATERATE	Distrib Coef:	2.4E-2	ml/g	DITOR_KD
Radio:		days		Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:	2.8E+1	days	FATERATE				
Radio:		days					
Log Kow:	-8.2E-1		PHYSPROP				
CLASS INFORMATION							
Class		Parent Substance					

REFERENCE 2

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Date: 1/28/2004
 Chemical: Cyanamide

CAS Number: 000420-04-2

SUPERFUND CHEMICAL DATA MATRIX

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10	Toxicity:	10	Toxicity:	10
Gas Mobility:	0.2000	Water Solub:	5.0E+5		
Gas Migration:	6	Distrib:	2.4E-2		
		Geo Mean Sol:			
		Mobility:			
Liquid	Karst:	1.0E+0			
	Non Karst:	1.0E+0			
Non Liq.	Karst:	1.0E+0			
	Non Karst:	1.0E+0			

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10	Toxicity:	10	Fresh Tox:	10
				Salt Tox:	100
Persistence		Persistence		Persistence	
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	0.5	Fresh:	0.5
		Salt:	0.5	Salt:	0.5

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIOMUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		<u>µg/m³</u>	MCL/MCLG:		<u>mg/L</u>	Cancer Risk:	
Cancer Risk:		<u>mg/m³</u>	Cancer Risk:		<u>mg/L</u>	Non Cancer Risk:	
Non Cancer Risk:		<u>mg/m³</u>	Non Cancer Risk:		<u>mg/L</u>		
						CANCER RISK	
						Air:	<u>pCi/m³</u>
						DW:	<u>pCi/L</u>
						FC:	<u>pCi/kg</u>
						Soil Ing:	<u>pCi/kg</u>
						Soil Gam:	<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>mg/L</u>	FDAAL:		<u>ppm</u>
Cancer Risk:		<u>mg/L</u>	Cancer Risk:		<u>mg/kg</u>
Non Cancer Risk:		<u>mg/L</u>	Non Cancer Risk:		<u>mg/kg</u>
				ACUTE	
				Fresh CMC:	<u>µg/L</u>
				Salt CMC:	<u>µg/L</u>
				CHRONIC	
				Fresh CCC:	<u>µg/L</u>
				Salt CCC:	<u>µg/L</u>

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Cyanide

CAS Number: 000057-12-5

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	2.0E-2	mg/kg/day	IRIS	Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	No		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	2.6E+1		
Oral ED10 Wgt:				Density:	@		
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:	2.2E+1	K, Q	WATCRIT	Vapor Press:	3.1E+2	Torr	PHYSPROP
Salt CMC:	1.0E+0	Q, bb	WATCRIT	Henry's Law:	2.4E-2	atm-m3/mol	PHYSPROP
CHRONIC							
Fresh CCC:	5.2E+0	K, Q	WATCRIT	Water Solub:		mg/L	
Salt CCC:	1.0E+0	Q, bb	WATCRIT	Distrib Coef:	9.9E+0	ml/g	DITOR_KD
Fresh Ecol LC50:	4.3E+1	μg/L	ECOTOX	Geo Mean Sol:		mg/L	
Salt Ecol LC50:	9.6E+1	μg/L	ECOTOX				
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		Vapor Press:	3.1E+2	Torr	PHYSPROP
Volatility:		days		Henry's Law:	2.4E-2	atm-m3/mol	PHYSPROP
Photolysis:		days		Water Solub:		mg/L	
Biodeg:		days		Distrib Coef:	9.9E+0	ml/g	DITOR_KD
Radio:		days		Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:		days		Log Kow:	-6.9E-1		PHYSPROP
Volatility:		days		Water Solub:		mg/L	
Photolysis:		days		Geo Mean Sol:			
Biodeg:		days					
Radio:		days					
Log Kow:	-6.9E-1		PHYSPROP	BIOACCUMULATION			
Parameter	Value	Unit	Source	ENVIRONMENTAL			
FOOD CHAIN							
Fresh BCF:				Fresh BCF:			
Salt BCF:				Salt BCF:			
OTHER DATA							
Melting Point:				Log Kow:	-6.9E-1		PHYSPROP
Boiling Point:				Water Solub:		mg/L	
Formula:	CN(-)			Geo Mean Sol:			

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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Date: 1/28/2004
 Chemical: Cyanide

CAS Number: 000057-12-5

SUPERFUND CHEMICAL DATA MATRIX

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	100	Toxicity:	100	Toxicity:	100
Gas Mobility:	1.0000	Water Solub:			
Gas Migration:	17	Distrib:	9.9E+0		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	100	Toxicity:	100	Fresh Tox:	1000
Persistence		Persistence		Salt Tox:	1000
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	0.5	Fresh:	0.5
		Salt:	0.5	Salt:	0.5

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value
NAAQS/NESHAPS:		µg/m³	MCL/MCLG:	2.0E-1	mg/L	Cancer Risk:	
Cancer Risk:		mg/m³	Cancer Risk:		mg/L	Non Cancer Risk:	1.6E+3
Non Cancer Risk:		mg/m³	Non Cancer Risk:	7.3E-1	mg/L		
						MCL:	
						UMTRCA:	
						CANCER RISK	
						Air:	pCi/m³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:	2.0E-1	mg/L	FDAAL:		ppm
Cancer Risk:		mg/L	Cancer Risk:		mg/kg
Non Cancer Risk:	7.3E-1	mg/L	Non Cancer Risk:	2.7E+1	mg/kg
					ACUTE
					Fresh CMC:
					2.2E+1 K, Q
					Salt CMC:
					1.0E+0 Q, bb
					CHRONIC
					Fresh CCC:
					5.2E+0 K, Q
					Salt CCC:
					1.0E+0 Q, bb

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: DDD

CAS Number: 000072-54-8

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	2.4E-1	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:	7.7E-1	mg/kg/day	EPA_ED10	Molecular Weight:	3.2E+2		
Oral ED10 Wgt:	B2			Density:	g/mL @ C		
Inhal ED10:	7.7E-1	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	B2						
Oral LD50:	1.1E+2	mg/kg	RTECS				
Dermal LD50:	1.2E+3	mg/kg	RTECS				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	5.0E-2	µg/L	ECOTOX				
Salt Ecol LC50:	9.9E-1	µg/L	ECOTOX				
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:	1.0E+4	days	CHEMFATE	Vapor Press:	6.7E-7	Torr	CHEMFATE
Volatility:	1.6E+2	days	THOMAS	Henry's Law:	4.0E-6	atm-m3/mol	CHEMFATE
Photolysis:		days		Water Solub:	9.0E-2	mg/L	CHEMFATE
Biodeg:	5.8E+3	days	FATERATE	Distrib Coef:	1.5E+5	ml/g	DITOR_KD
Radio:		days		Geo Mean Sol:	mg/L		
RIVER - Halflives							
Hydrolysis:	1.0E+4	days	CHEMFATE				
Volatility:	8.3E+0	days	THOMAS				
Photolysis:		days					
Biodeg:	5.8E+3	days	FATERATE				
Radio:		days					
Log Kow:	6.0E+0		CHEMFATE				
CLASS INFORMATION				BIOACCUMULATION			
Class	Parent Substance			Parameter	Value	Unit	Source
				FOOD CHAIN			
				Fresh BCF:	4.4E+5		ECOTOX
				Salt BCF:	5.6E+1		
ENVIRONMENTAL							
				Log Kow:	6.0E+0		CHEMFATE
				Water Solub:	9.0E-2		CHEMFATE
				Geo Mean Sol:	mg/L		
OTHER DATA				Melting Point:	1.1E+2	C.	
				Boiling Point:		C.	
				Formula:	C14 H10 Cl4		

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: DDD

CAS Number: 000072-54-8

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	100
Gas Mobility:	0.0020
Gas Migration:	6

Parameter	Value
Toxicity:	100
Water Solub:	9.0E-2
Distrib:	1.5E+5
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	2.0E-3
Non Karst:	2.0E-7

Parameter	Value
Toxicity:	100

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	100

Parameter	Value
Toxicity:	100

Parameter	Value
Fresh Tox:	10000
Salt Tox:	10000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

Bioaccumulation	
Fresh:	50000.0
Salt:	50.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value
NAAQS/NESHAPS:	
Cancer Risk:	
Non Cancer Risk:	

Unit	Parameter	Value
$\mu\text{g}/\text{m}^3$	MCL/MCLG:	
mg/m^3	Cancer Risk:	3.5E-4
mg/m^3	Non Cancer Risk:	

Unit	Parameter	Value
mg/L	Cancer Risk:	2.7E+0
mg/L	Non Cancer Risk:	
mg/L		

Unit	Parameter	Value	Unit
pCi/L	MCL:		pCi/kg
pCi/L	UMTRCA:		pCi/kg
pCi/kg	CANCER RISK		
pCi/m^3	Air:		
pCi/L	DW:		
pCi/kg	FC:		
pCi/kg	Soil Ing:		
pCi/kg	Soil Gam:		

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
MCL/MCLG:	
Cancer Risk:	3.5E-4
Non Cancer Risk:	

Parameter	Value
FDAAL:	
Cancer Risk:	1.3E-2
Non Cancer Risk:	

Parameter	Value
ACUTE	
Fresh CMC:	
Salt CMC:	

CHRONIC	
Fresh CCC:	
Salt CCC:	

Unit	Value
$\mu\text{g}/\text{L}$	
$\mu\text{g}/\text{L}$	
$\mu\text{g}/\text{L}$	
$\mu\text{g}/\text{L}$	

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: DDE

CAS Number: 000072-55-9

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	3.4E-1	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:	2.6E-1	mg/kg/day	EPA_ED10	Molecular Weight:	3.2E+2		
Oral ED10 Wgt:	B2			Density:	g/mL @	C	
Inhal ED10:	2.6E-1	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	B2						
Oral LD50:	7.0E+2	mg/kg	RTECS				
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE				MOBILITY			
Fresh CMC:		µg/L		Parameter	Value	Unit	Source
Salt CMC:		µg/L		Vapor Press:	6.0E-6	Torr	CHEMFATE
CHRONIC				Henry's Law:	2.1E-5	atm-m3/mol	CHEMFATE
Fresh CCC:		µg/L		Water Solub:	1.2E-1	mg/L	LIVECHEM
Salt CCC:		µg/L		Distrib Coef:	6.8E+5	ml/g	DITOR_KD
Fresh Ecol LC50:	1.1E+1	µg/L	ECOTOX	Geo Mean Sol:	mg/L		
Salt Ecol LC50:	1.8E+0	µg/L	ECOTOX				
PERSISTENCE				BIOACCUMULATION			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives				FOOD CHAIN			
Hydrolysis:		days		Fresh BCF:	5.1E+5		ECOTOX
Volatility:	1.6E+2	days	THOMAS	Salt BCF:	9.2E+4		ECOTOX
Photolysis:	1.0E+0	days	CHEMFATE				
Biodeg:	5.8E+3	days	FATERATE				
Radio:		days					
RIVER - Halflives				ENVIRONMENTAL			
Hydrolysis:		days		Fresh BCF:	5.1E+5		ECOTOX
Volatility:	3.8E+0	days	THOMAS	Salt BCF:	9.2E+4		ECOTOX
Photolysis:	1.0E+0	days	CHEMFATE				
Biodeg:	5.8E+3	days	FATERATE				
Radio:		days					
Log Kow:	5.7E+0		CHEMFATE	Log Kow:	5.7E+0		CHEMFATE
				Water Solub:	1.2E-1	mg/L	LIVECHEM
				Geo Mean Sol:			
CLASS INFORMATION				OTHER DATA			
				Melting Point:	8.9E+1	C	
				Boiling Point:		C	
				Formula:	C14 H8 Cl4		

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: DDE

CAS Number: 000072-55-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Gas Mobility:	0.0020
Gas Migration:	6

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Water Solub:	1.2E-1
Distrib:	6.8E+5
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	2.0E-3
Non Karst:	2.0E-7

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	10000
Salt Tox:	10000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:	
Cancer Risk:	
Non Cancer Risk:	

<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
µg/m ³	MCL/MCLG:	
mg/m ³	Cancer Risk:	2.5E-4
mg/m ³	Non Cancer Risk:	

<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
mg/L	Cancer Risk:	5.0E+0
mg/L	Non Cancer Risk:	

<u>Parameter</u>	<u>Value</u>
Cancer Risk:	1.9E+0
Non Cancer Risk:	

<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
mg/kg	MCL:	
mg/kg	UMTRCA:	
	CANCER RISK	

Air:	pCi/m ³
DW:	pCi/L
FC:	pCi/kg
Soil Ing:	pCi/kg
Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	
Cancer Risk:	2.5E-4
Non Cancer Risk:	

<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
mg/L	FDAAL:	5.0E+0
mg/L	Cancer Risk:	9.3E-3
mg/L	Non Cancer Risk:	

<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
ppm	ACUTE	
mg/kg	Fresh CMC:	
mg/kg	Salt CMC:	

CHRONIC	
Fresh CCC:	
Salt CCC:	

<u>Unit</u>	
µg/L	
µg/L	

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: DDT

CAS Number: 000050-29-3

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	5.0E-4	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	3.4E-1	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:	3.4E-1	(mg/kg/day)^-1	IRIS	Radionuclide:	No		
Inhal Wt-of-Evid:	B2			Rad. Element:	No		
Oral ED10:	1.8E-1	mg/kg/day	EPA_ED10	Molecular Weight:	3.5E+2		
Oral ED10 Wgt:	B2			Density:		g/mL @	C
Inhal ED10:	1.8E-1	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	B2						
Oral LD50:	2.5E+2	mg/kg	ACGIH				
Dermal LD50:	2.5E+3	mg/kg	ACGIH				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE				MOBILITY			
Fresh CMC:	1.1E+0	G, ii	µg/L	Vapor Press:	1.6E-7	Torr	CHEMFATE
Salt CMC:	1.3E-1	G, ii	µg/L	Henry's Law:	8.1E-6	atm-m3/mol	CHEMFATE
CHRONIC				Water Solub:	2.5E-2	mg/L	CHEMFATE
Fresh CCC:	1.0E-3	G, aa, ii	µg/L	Distrib Coef:	4.0E+5	ml/g	DITOR_KD
Salt CCC:	1.0E-3	G, aa, ii	µg/L	Geo Mean Sol:		mg/L	
Fresh Ecol LC50:	1.0E-1	µg/L	ECOTOX	BIOACCUMULATION			
Salt Ecol LC50:	7.0E-2	µg/L	ECOTOX	FOOD CHAIN			
PERSISTENCE				Food Chain	Value	Unit	Source
Parameter	Value	Unit	Source	FRESH BCF:	3.6E+5		ECOTOX
LAKE - Halflives				SALT BCF:	7.6E+4		VER_BCF
Hydrolysis:	8.1E+3	days	FATERATE	ENVIRONMENTAL			
Volatility:	1.7E+2	days	THOMAS	FRESH BCF:	3.6E+5		ECOTOX
Photolysis:		days		SALT BCF:	2.0E+3		ECOTOX
Biodeg:	5.7E+3	days	FATERATE	LOG KOW:	6.4E+0		CHEMFATE
Radio:		days		Water Solub:	2.5E-2		CHEMFATE
RIVER - Halflives				Geo Mean Sol:		mg/L	
Hydrolysis:	8.1E+3	days	FATERATE	OTHER DATA			
Volatility:	7.5E+0	days	THOMAS	Melting Point:	1.1E+2	C	
Photolysis:		days		Boiling Point:	2.6E+2	C	
Biodeg:	5.7E+3	days	FATERATE	Formula:	C14 H9 Cl5		
Radio:		days					
Log Kow:	6.4E+0		CHEMFATE				
CLASS INFORMATION							
<u>Class</u>	<u>Parent Substance</u>						

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: DDT

CAS Number: 000050-29-3

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	1000	Toxicity:	1000	Toxicity:	1000
Gas Mobility:	0.0020	Water Solub:	2.5E-2		
Gas Migration:	6	Distrib:	4.0E+5		
		Geo Mean Sol:			
		Mobility:			
Liquid	Karst:	1.0E+0			
	Non Karst:	1.0E-4			
Non Liq.	Karst:	2.0E-3			
	Non Karst:	2.0E-7			

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	1000	Toxicity:	1000	Fresh Tox:	10000
Persistence		Persistence		Salt Tox:	10000
River:	1.0000	River:	1.0000		
Lake:	1.0000	Lake:	1.0000		
		Bioaccumulation			
		Fresh:	50000.0		
		Salt:	50000.0		
				Bioaccumulation	
				Fresh:	50000.0
				Salt:	50000.0

BENCHMARKS

AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:	1.9E+0	mg/kg	MCL:		pCi/L
Cancer Risk:	2.5E-5	mg/m ³	Cancer Risk:	2.5E-4	mg/L	Non Cancer Risk:	3.9E+1	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m ³	Non Cancer Risk:	1.8E-2	mg/L				CANCER RISK		
									Air:		pCi/m ³
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAL:	5.0E+0	ppm	ACUTE		
Cancer Risk:	2.5E-4	mg/L	Cancer Risk:	9.3E-3	mg/kg	Fresh CMC:	1.1E+0 G, ii	µg/L
Non Cancer Risk:	1.8E-2	mg/L	Non Cancer Risk:	6.8E-1	mg/kg	Salt CMC:	1.3E-1 G, ii	µg/L
						CHRONIC		
						Fresh CCC:	1.0E-3 G, aa, ii	µg/L
						Salt CCC:	1.0E-3 G, aa, ii	µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Di-n-butyl phthalate

CAS Number: 000084-74-2

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	1.0E-1	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	2.8E+2		
Oral ED10 Wgt:				Density:	1.0E+0	g/mL @ 20.00 C	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	8.0E+0	mg/kg	RTECS				
Dermal LD50:	2.1E+4	mg/kg	RTECS				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	2.8E+2	µg/L	ECOTOX				
Salt Ecol LC50:	2.0E+1	µg/L	ECOTOX				
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:	3.7E+3	days	CHEMFATE	Vapor Press:	7.3E-5	Torr	CHEMFATE
Volatility:	1.7E+2	days	THOMAS	Henry's Law:	1.8E-6	atm-m3/mol	CHEMFATE
Photolysis:	1.4E+2	days	FATERATE	Water Solub:	1.1E+1	mg/L	CHEMFATE
Biodeg:	2.3E+1	days	FATERATE	Distrib Coef:	5.2E+3	ml/g	DITOR_KD
Radio:		days		Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:	3.7E+3	days	CHEMFATE				
Volatility:	2.4E+1	days	THOMAS				
Photolysis:	1.4E+2	days	FATERATE				
Biodeg:	2.3E+1	days	FATERATE				
Radio:		days					
Log Kow:	4.7E+0		CHEMFATE				
CLASS INFORMATION				ENVIRONMENTAL			
Class	Parent Substance			Food Chain	Value	Unit	Source
				Fresh BCF:	6.7E+3		ECOTOX
				Salt BCF:			
				Fresh BCF:	8.8E+3		ECOTOX
				Salt BCF:	2.3E+3		ECOTOX
				Log Kow:	4.7E+0		CHEMFATE
				Water Solub:	1.1E+1		CHEMFATE
				Geo Mean Sol:		mg/L	
OTHER DATA							
				Melting Point:	-3.5E+1	C	
				Boiling Point:	3.4E+2	C	
				Formula:	C16 H22 O4		

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Di-n-butyl phthalate

CAS Number: 000084-74-2

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10
Gas Mobility:	0.0200
Gas Migration:	6

<u>Parameter</u>	<u>Value</u>
Toxicity:	10
Water Solub:	1.1E+1
Distrib:	5.2E+3
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	2.0E-1
Non Karst:	2.0E-5

<u>Parameter</u>	<u>Value</u>
Toxicity:	10

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	10

<u>Parameter</u>	<u>Value</u>
Toxicity:	10

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	1000
Salt Tox:	10000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	5000.0
Salt:	5000.0

Bioaccumulation	
Fresh:	5000.0
Salt:	5000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		<u>µg/m³</u>
Cancer Risk:		<u>mg/m³</u>
Non Cancer Risk:	3.7E+0	<u>mg/m³</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>MCL/MCLG:</u>
Cancer Risk:		<u>Cancer Risk:</u>
Non Cancer Risk:	1.4E+2	<u>Non Cancer Risk:</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Cancer Risk:		<u>mg/L</u>
Non Cancer Risk:	7.8E+3	<u>mg/L</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL:		<u>pCi/L</u>
UMTRCA:		<u>pCi/kg</u>

CANCER RISK	
Air:	<u>pCi/m³</u>
DW:	<u>pCi/L</u>
FC:	<u>pCi/kg</u>
Soil Ing:	<u>pCi/kg</u>
Soil Gam:	<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>mg/L</u>
Cancer Risk:		<u>mg/L</u>
Non Cancer Risk:	3.7E+0	<u>mg/L</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
FDAAL:		<u>ppm</u>
Cancer Risk:		<u>mg/kg</u>
Non Cancer Risk:	1.4E+2	<u>mg/kg</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:		<u>µg/L</u>

CHRONIC	
Fresh CCC:	<u>µg/L</u>
Salt CCC:	<u>µg/L</u>

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Di-n-octyl phthalate

CAS Number: 000117-84-0

TOXICITY				PHYSICAL CHARACTERISTICS			
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Parameter	Value	Unit	Source	Parameter	Value
Oral RfD:	2.0E-2	mg/kg/day	HEAST	Metal Contain:	No
Inhal RfD:		mg/kg/day		Organic:	Yes
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes
Oral Wt-of-Evid:				Particulate:	Yes
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No
Inhal Wt-of-Evid:				Rad. Element:	No
Oral ED10:		mg/kg/day		Molecular Weight:	3.9E+2
Oral ED10 Wgt:				Density:	g/mL @ C
Inhal ED10:		mg/kg/day			
Inhal ED10 Wgt:					
Oral LD50:		mg/kg			
Dermal LD50:	5.0E+3	mg/kg	RTECS		
Gas Inhal LC50:		ppm			
Dust Inhal LC50:		mg/L			

ACUTE			
Fresh CMC:		μg/L	
Salt CMC:		μg/L	

CHRONIC			
Fresh CCC:		μg/L	
Salt CCC:		μg/L	

Fresh Ecol LC50:	μg/L		
Salt Ecol LC50:	μg/L		

PERSISTENCE			
Parameter	Value	Unit	Source
LAKE - Halflives			
Hydrolysis:	3.9E+2	days	CHEMFATE
Volatility:	1.7E+2	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+1	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:	3.9E+2	days	CHEMFATE
Volatility:	2.6E+0	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+1	days	FATERATE
Log Kow:	8.1E+0		PHYSPROP

Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:	1.1E+2		VER_BCF
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	2.9E+4		ECOTOX
Salt BCF:			
Log Kow:	8.1E+0		PHYSPROP
Water Solub:	2.0E-2		CHEMFATE
Geo Mean Sol:		mg/L	

OTHER DATA			
Melting Point:	2.5E+1	C	
Boiling Point:		C	
Formula:	C24 H38 O4		

CLASS INFORMATION		
Class	Parent Substance	

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Di-n-octyl phthalate

CAS Number: 000117-84-0

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	100	Toxicity:	100	Toxicity:	100
Gas Mobility:	0.0020	Water Solub:	2.0E-2		
Gas Migration:	.6	Distrib:	1.3E+7		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-4		
		Non Liq. Karst:	2.0E-3		
		Non Karst:	2.0E-7		

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	100	Toxicity:	100	Fresh Tox:	0
Persistence		Persistence		Salt Tox:	0
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	500.0	Fresh:	50000.0
		Salt:	500.0	Salt:	50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		<u>µg/m³</u>	MCL/MCLG:		<u>mg/L</u>	Cancer Risk:		<u>mg/kg</u>	MCL:		<u>pCi/L</u>
Cancer Risk:		<u>mg/m³</u>	Cancer Risk:		<u>mg/L</u>	Non Cancer Risk:	1.6E+3	<u>mg/kg</u>	UMTRCA:		<u>pCi/kg</u>
Non Cancer Risk:		<u>mg/m³</u>	Non Cancer Risk:	7.3E-1	<u>mg/L</u>				CANCER RISK		
									Air:		<u>pCi/m³</u>
									DW:		<u>pCi/L</u>
									FC:		<u>pCi/kg</u>
									Soil Ing:		<u>pCi/kg</u>
									Soil Gam:		<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>mg/L</u>	FDAAL:		<u>ppm</u>	ACUTE		
Cancer Risk:		<u>mg/L</u>	Cancer Risk:		<u>mg/kg</u>	Fresh CMC:		<u>µg/L</u>
Non Cancer Risk:	7.3E-1	<u>mg/L</u>	Non Cancer Risk:	2.7E+1	<u>mg/kg</u>	Salt CMC:		<u>µg/L</u>
						CHRONIC		
						Fresh CCC:		<u>µg/L</u>
						Salt CCC:		<u>µg/L</u>

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Dibenz(a,h)anthracene

CAS Number: 000053-70-3

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	7.3E+0	(mg/kg/day)^-1	LIVECHEM	Gas:	No		
Oral Wt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:	2.8E-3	mg/kg/day	SPHEM	Molecular Weight:	2.8E+2		
Oral ED10 Wgt:	B2			Density:		g/mL @	C
Inhal ED10:	2.8E-3	mg/kg/day	SPHEM				
Inhal ED10 Wgt:	B2						
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:		µg/L					
Salt Ecol LC50:		µg/L					
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		Vapor Press:	1.0E-10	Torr	CHEMFATE
Volatility:	5.1E+2	days	THOMAS	Henry's Law:	1.5E-8	atm-m3/mol	CHEMFATE
Photolysis:	3.3E+1	days	FATERATE	Water Solub:	2.5E-3	mg/L	CHEMFATE
Biodeg:	9.4E+2	days	FATERATE	Distrib Coef:	5.8E+5	ml/g	DITOR_KD
Radio:		days		Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	3.3E+2	days	THOMAS				
Photolysis:	3.3E+1	days	FATERATE				
Biodeg:	9.4E+2	days	FATERATE				
Radio:		days					
Log Kow:	6.5E+0		CHEMFATE				
CLASS INFORMATION				BIOACCUMULATION			
Class	Parent Substance			Parameter	Value	Unit	Source
				FOOD CHAIN			
				Fresh BCF:			
				Salt BCF:			
ENVIRONMENTAL							
				Fresh BCF:	5.0E+4		ECOTOX
				Salt BCF:			
				Log Kow:	6.5E+0		CHEMFATE
				Water Solub:	2.5E-3		CHEMFATE
				Geo Mean Sol:		mg/L	
OTHER DATA							
				Melting Point:	2.7E+2	C	
				Boiling Point:		C	
				Formula:	C22 H14		

REFERENCE 2

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Date: 1/28/2004
 Chemical: Dibenz(a,h)anthracene

CAS Number: 000053-70-3

SUPERFUND CHEMICAL DATA MATRIX

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:		Water Solub:	2.5E-3		
Gas Migration:		Distrib:	5.8E+5		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-4		
		Non Liq. Karst:	2.0E-5		
		Non Karst:	2.0E-9		

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	0
Persistence		Persistence		Salt Tox:	0
River:	1.0000	River:	1.0000	Persistence	
Lake:	1.0000	Lake:	1.0000	River:	1.0000
		Bioaccumulation		Lake:	1.0000
		Fresh:	50000.0	Bioaccumulation	
		Salt:	50000.0	Fresh:	50000.0
				Salt:	50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		<u>µg/m³</u>	MCL/MCLG:		<u>mg/L</u>	Cancer Risk:	8.8E-2	<u>mg/kg</u>	MCL:		<u>pCi/L</u>
Cancer Risk:		<u>mg/m³</u>	Cancer Risk:	1.2E-5	<u>mg/L</u>	Non Cancer Risk:		<u>mg/kg</u>	UMTRCA:		<u>pCi/kg</u>
Non Cancer Risk:		<u>mg/m³</u>	Non Cancer Risk:		<u>mg/L</u>				CANCER RISK		
									Air:		<u>pCi/m³</u>
									DW:		<u>pCi/L</u>
									FC:		<u>pCi/kg</u>
									Soil Ing:		<u>pCi/kg</u>
									Soil Gam:		<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>mg/L</u>	FDAAL:		<u>ppm</u>	ACUTE		
Cancer Risk:	1.2E-5	<u>mg/L</u>	Cancer Risk:	4.3E-4	<u>mg/kg</u>	Fresh CMC:		<u>µg/L</u>
Non Cancer Risk:		<u>mg/L</u>	Non Cancer Risk:		<u>mg/kg</u>	Salt CMC:		<u>µg/L</u>
						CHRONIC		
						Fresh CCC:		<u>µg/L</u>
						Salt CCC:		<u>µg/L</u>

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Dibenzofuran

CAS Number: 000132-64-9

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	4.0E-3	mg/kg/day	STSC	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:		(mg/kg/day)^-1		Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.7E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	1.1E+0	g/mL @ 99.00 C	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L		MOBILITY			
Salt CMC:		µg/L		Parameter	Value	Unit	Source
CHRONIC				Vapor Press:	1.8E-4	Torr	CHEMFATE
Fresh CCC:		µg/L		Henry's Law:	1.3E-5	atm-m3/mol	CHEMFATE
Salt CCC:		µg/L		Water Solub:	3.1E+0	mg/L	CHEMFATE
Fresh Ecol LC50:	8.4E+2	µg/L	ECOTOX	Distrib Coef:	1.7E+3	ml/g	DITOR_KD
Salt Ecol LC50:	1.0E+3	µg/L	ECOTOX	Geo Mean Sol:		mg/L	
PERSISTENCE							
Parameter	Value	Unit	Source	BIOACCUMULATION			
LAKE - Halflives							
Hydrolysis:		days		Parameter	Value	Unit	Source
Volatility:	1.2E+2	days	THOMAS	FOOD CHAIN			
Photolysis:		days		Fresh BCF:			
Biodeg:	2.8E+1	days	FATERATE	Salt BCF:			
Radio:		days		ENVIRONMENTAL			
RIVER - Halflives							
Hydrolysis:		days		Fresh BCF:			
Volatility:	3.7E+0	days	THOMAS	Salt BCF:			
Photolysis:		days		Log Kow:	4.1E+0		CHEMFATE
Biodeg:	2.8E+1	days	FATERATE	Water Solub:	3.1E+0		CHEMFATE
Radio:		days		Geo Mean Sol:		mg/L	
Log Kow:	4.1E+0		CHEMFATE	OTHER DATA			
CLASS INFORMATION							
Class				Melting Point:	8.7E+1	C	
				Boiling Point:	2.9E+2	C	
				Formula:	C12 H8 O		

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Dibenzofuran

CAS Number: 000132-64-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	1000
Gas Mobility:	0.0200
Gas Migration:	11

Parameter	Value
Toxicity:	1000
Water Solub:	3.1E+0
Distrib:	1.7E+3
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	2.0E-1
Non Karst:	2.0E-5

Parameter	Value
Toxicity:	1000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	1000

Parameter	Value
Toxicity:	1000

Parameter	Value
Fresh Tox:	1000
Salt Tox:	1000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation

Fresh:	500.0
Salt:	500.0

Bioaccumulation

Fresh:	500.0
Salt:	500.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value
NAAQS/NESHAPS:	
Cancer Risk:	
Non Cancer Risk:	

Unit	
$\mu\text{g}/\text{m}^3$	
mg/m ³	
mg/m ³	

Parameter	Value
MCL/MCLG:	
Cancer Risk:	
Non Cancer Risk:	1.5E-1

Unit	
mg/L	
mg/L	
mg/L	

Parameter	Value
Cancer Risk:	
Non Cancer Risk:	3.1E+2

Parameter	Value
MCL:	
UMTRCA:	
CANCER RISK	

Air:	$\mu\text{Ci}/\text{m}^3$
DW:	$\mu\text{Ci}/\text{L}$
FC:	$\mu\text{Ci}/\text{kg}$
Soil Ing:	$\mu\text{Ci}/\text{kg}$
Soil Gam:	$\mu\text{Ci}/\text{kg}$

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
MCL/MCLG:	
Cancer Risk:	
Non Cancer Risk:	1.5E-1

Unit	
mg/L	
mg/L	
mg/L	

Parameter	Value
FDAAL:	
Cancer Risk:	
Non Cancer Risk:	5.4E+0

Unit	
ppm	
mg/kg	
mg/kg	

Parameter	Value
ACUTE	
Fresh CMC:	
Salt CMC:	

CHRONIC	
Fresh CCC:	$\mu\text{g}/\text{L}$
Salt CCC:	$\mu\text{g}/\text{L}$

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Dibromo-3-chloropropane, 1,2-

CAS Number: 000096-12-8

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:	5.7E-5	mg/kg/day	IRIS	Organic:	Yes		
Oral Slope:	1.4E+0	(mg/kg/day)^-1	HEAST	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	No		
Inhal Slope:	2.4E-3	(mg/kg/day)^-1	HEAST	Radionuclide:	No		
Inhal Wt-of-Evid:	B2			Rad. Element:	No		
Oral ED10:	8.1E-4	mg/kg/day	EPA_ED10	Molecular Weight:	2.4E+2		
Oral ED10 Wgt:	B2			Density:	2.1E+0	g/mL @ 14.00	C
Inhal ED10:	8.1E-4	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	B2						
Oral LD50:	1.5E+2	mg/kg	RTECS				
Dermal LD50:	1.4E+3	mg/kg	RTECS				
Gas Inhal LC50:	1.0E+2	ppm	RTECS				
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	2.0E+4	µg/L	ECOTOX				
Salt Ecol LC50:		µg/L					
PERSISTENCE							
Parameter	Value	Unit	Source				
LAKE - Halflives							
Hydrolysis:	1.4E+2	days	CHEMFATE				
Volatility:	1.4E+2	days	THOMAS				
Photolysis:		days					
Biodeg:	1.8E+2	days	FATERATE				
Radio:		days					
RIVER - Halflives							
Hydrolysis:	1.4E+2	days	CHEMFATE				
Volatility:	1.7E+0	days	THOMAS				
Photolysis:		days					
Biodeg:	1.8E+2	days	FATERATE				
Radio:		days					
Log Kow:	2.3E+0		CHEMFATE				

MOBILITY			
Parameter	Value	Unit	Source
Vapor Press:	5.8E-1	Torr	CHEMFATE
Henry's Law:	1.5E-4	atm-m3/mol	CHEMFATE
Water Solub:	1.2E+3	mg/L	CHEMFATE
Distrib Coef:	1.7E-1	ml/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	2.3E+0		CHEMFATE
Water Solub:	1.2E+3		CHEMFATE
Geo Mean Sol:		mg/L	

OTHER DATA			
Melting Point:		C	
Boiling Point:	2.0E+2	C	
Formula:	C3 H5 Br2 Cl		

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Dibromo-3-chloropropane, 1,2-

CAS Number: 000096-12-8

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Gas Mobility:	1.0000
Gas Migration:	11

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Water Solub:	1.2E+3
Distrib:	1.7E-1
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E+0

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	10
Salt Tox:	10

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	50.0
Salt:	50.0

Bioaccumulation	
Fresh:	50.0
Salt:	50.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		
Cancer Risk:	3.5E-3	µg/m3
Non Cancer Risk:	2.1E-4	mg/m3

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:	2.0E-4	MCL/MCLG:
Cancer Risk:	6.1E-5	mg/m3
Non Cancer Risk:		mg/m3

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Cancer Risk:	2.0E-4	mg/L
Non Cancer Risk:		mg/L

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Cancer Risk:	6.1E-5	mg/kg
Non Cancer Risk:		mg/kg
Air:		pCi/m3
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:	2.0E-4	mg/L
Cancer Risk:	6.1E-5	mg/L
Non Cancer Risk:		mg/L

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
FDAAL:		ppm
Cancer Risk:	2.3E-3	mg/kg
Non Cancer Risk:		mg/kg

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:		µg/L

CHRONIC	
Fresh CCC:	
Salt CCC:	

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Dibromoethane, 1,2-

CAS Number: 000106-93-4

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:	5.7E-5	mg/kg/day	HEAST	Organic:	Yes		
Oral Slope:	8.5E+1	(mg/kg/day) ⁻¹	IRIS	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	No		
Inhal Slope:	7.7E-1	(mg/kg/day) ⁻¹	IRIS	Radionuclide:	No		
Inhal Wt-of-Evid:	B2			Rad. Element:	No		
Oral ED10:	2.6E-3	mg/kg/day	SPHEM	Molecular Weight:	1.9E+2		
Oral ED10 Wgt:	B2			Density:	2.2E+0	g/mL @ 20.00 C	
Inhal ED10:	2.6E-3	mg/kg/day	SPHEM				
Inhal ED10 Wgt:	B2						
Oral LD50:	1.2E+2	mg/kg	ACGIH				
Dermal LD50:	3.0E+2	mg/kg	RTECS				
Gas Inhal LC50:	4.0E+2	ppm	RTECS				
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L		Vapor Press:	1.3E+1	Torr	CHEMFATE
Salt CMC:		µg/L		Henry's Law:	7.4E-4	atm-m ³ /mol	CHEMFATE
CHRONIC							
Fresh CCC:		µg/L		Water Solub:	4.0E+3	mg/L	CHEMFATE
Salt CCC:		µg/L		Distrib Coef:	8.5E-2	ml/g	SSG_KD
Fresh Ecol LC50:	1.5E+4	µg/L	ECOTOX	Geo Mean Sol:		mg/L	
Salt Ecol LC50:	4.8E+3	µg/L	ECOTOX				
PERSISTENCE							
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:	2.9E+3	days	CHEMFATE	Log Kow:	2.0E+0		CHEMFATE
Volatility:	1.2E+2	days	THOMAS	Water Solub:	4.0E+3		CHEMFATE
Photolysis:		days		Geo Mean Sol:		mg/L	
Biodeg:	1.8E+2	days	FATERATE				
Radio:		days					
RIVER - Halflives							
Hydrolysis:	2.9E+3	days	CHEMFATE	Melting Point:	9.9E+0	C	
Volatility:	1.3E+0	days	THOMAS	Boiling Point:	1.3E+2	C	
Photolysis:		days		Formula:	C ₂ H ₄ Br ₂		
Biodeg:	1.8E+2	days	FATERATE				
Radio:		days					
Log Kow:	2.0E+0		CHEMFATE				
CLASS INFORMATION							
<u>Class</u>				<u>Parent Substance</u>			

REFERENCE 2

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Date: 1/28/2004
 Chemical: Dibromoethane, 1,2-

CAS Number: 000106-93-4

SUPERFUND CHEMICAL DATA MATRIX

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Gas Mobility:	1.0000
Gas Migration:	17

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Water Solub:	4.0E+3
Distrib:	8.5E-2
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E+0

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	10
Salt Tox:	100

Persistence	
River:	0.4000
Lake:	1.0000

Persistence	
River:	0.4000
Lake:	1.0000

Persistence	
River:	0.4000
Lake:	1.0000

Bioaccumulation	
Fresh:	5.0
Salt:	5.0

Bioaccumulation	
Fresh:	5.0
Salt:	5.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:	
Cancer Risk:	1.1E-5
Non Cancer Risk:	2.1E-4

<u>Parameter</u>	<u>Value</u>
Unit	
µg/m ³	MCL/MCLG:
mg/m ³	Cancer Risk:
mg/m ³	Non Cancer Risk:

<u>Parameter</u>	<u>Value</u>
Unit	
mg/L	Cancer Risk:
mg/L	Non Cancer Risk:

<u>Parameter</u>	<u>Value</u>
Unit	
mg/kg	MCL:
mg/kg	UMTRCA:
	CANCER RISK
Air:	pCi/m ³
DW:	pCi/L
FC:	pCi/kg
Soil Ing:	pCi/kg
Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	
Cancer Risk:	1.0E-6
Non Cancer Risk:	

<u>Parameter</u>	<u>Value</u>
Unit	
mg/L	FDAAL:
mg/L	Cancer Risk:
mg/L	Non Cancer Risk:

<u>Parameter</u>	<u>Value</u>
Unit	
ppm	
mg/kg	FRESH CMC:
mg/kg	SALT CMC:

ACUTE	
FRESH CMC:	
SALT CMC:	

CHRONIC	
FRESH CCC:	
SALT CCC:	

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Dichlorobenzene, 1,4-

CAS Number: 000106-46-7

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:	2.3E-1	mg/kg/day	IRIS	Organic:	Yes		
Oral Slope:	2.4E-2	(mg/kg/day) ⁻¹	HEAST	Gas:	Yes		
Oral Wt-of-Evid:	C			Particulate:	No		
Inhal Slope:		(mg/kg/day) ⁻¹		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.5E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	1.2E+0	g/mL @ 55.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:	1.6E+3	mg/kg	ACGIH				
Dermal LD50:	5.0E+3	mg/kg	ACGIH				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:	3.1E+1	mg/L	RTECS				
ACUTE							
Fresh CMC:		µg/L			MOBILITY		
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L		Parameter	Value	Unit	Source
Salt CCC:		µg/L		Vapor Press:	1.0E+0	Torr	CHEMFATE
Fresh Ecol LC50:	8.8E+2	µg/L	ECOTOX	Henry's Law:	2.4E-3	atm-m ³ /mol	CHEMFATE
Salt Ecol LC50:	2.0E+3	µg/L	ECOTOX	Water Solub:	7.9E+1	mg/L	CHEMFATE
PERSISTENCE				Distrib Coef:	1.2E+0	ml/g	SSG_KD
ENVIRONMENTAL				Geo Mean Sol:		mg/L	
BIOACCUMULATION							
OTHER DATA							
CLASS INFORMATION							

Class Parent Substance

REFERENCE 2

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Date: 1/28/2004
 Chemical: Dichlorobenzene, 1,4-

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000106-46-7

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10
Gas Mobility:	1.0000
Gas Migration:	17

<u>Parameter</u>	<u>Value</u>
Toxicity:	10
Water Solub:	7.9E+1
Distrib:	1.2E+0
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	2.0E-1
Non Karst:	2.0E-1

<u>Parameter</u>	<u>Value</u>
Toxicity:	10

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	10

<u>Parameter</u>	<u>Value</u>
Toxicity:	10
Persistence	
River:	0.4000
Lake:	1.0000
Bioaccumulation	
Fresh:	5000.0
Salt:	5000.0

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	1000
Salt Tox:	100

<u>Parameter</u>	<u>Value</u>
Persistence	
River:	0.4000
Lake:	1.0000
Bioaccumulation	
Fresh:	5000.0
Salt:	5000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:	
Cancer Risk:	
Non Cancer Risk:	8.3E-1

<u>Parameter</u>	<u>Value</u>
µg/m ³	MCL/MCLG:
mg/m ³	Cancer Risk:
mg/m ³	Non Cancer Risk:

<u>Parameter</u>	<u>Value</u>
mg/L	Cancer Risk:
mg/L	Non Cancer Risk:

<u>Parameter</u>	<u>Value</u>
mg/kg	2.7E+1
mg/kg	UMTRCA:
CANCER RISK	
Air:	pCi/m ³
DW:	pCi/L
FC:	pCi/kg
Soil Ing:	pCi/kg
Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	7.5E-2
Cancer Risk:	3.5E-3
Non Cancer Risk:	

<u>Parameter</u>	<u>Value</u>
FDAAL:	
Cancer Risk:	1.3E-1
Non Cancer Risk:	

<u>Parameter</u>	<u>Value</u>
ACUTE	
Fresh CMC:	
Salt CMC:	

CHRONIC	
Fresh CCC:	µg/L
Salt CCC:	µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Dichloroethane, 1,1-

CAS Number: 000075-34-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.0E-1	mg/kg/day	LIVECHEM
Inhal RfD:	1.4E-1	mg/kg/day	HEAST
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:		(mg/kg/day)^-1	
Inhal Slope:		(mg/kg/day)^-1	
Inhal Wt-of-Evid:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:	1.3E+4	ppm	ACGIH
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>
Metal Contain:	No
Organic:	Yes
Gas:	Yes
Particulate:	No
Radionuclide:	No
Rad. Element:	No
Molecular Weight:	9.9E+1
Density:	1.2E+0 g/mL @ 20.00 C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.3E+2	Torr	CHEMFATE
Henry's Law:	5.6E-3	atm-m3/mol	CHEMFATE
Water Solub:	5.1E+3	mg/L	CHEMFATE
Distrib Coef:	6.3E-2	ml/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:	1.8E+0	CHEMFATE
Salt BCF:		
Log Kow:	1.8E+0	
Water Solub:	5.1E+3	CHEMFATE
Geo Mean Sol:		mg/L

OTHER DATA

Melting Point:	-9.7E+1	C
Boiling Point:	5.7E+1	C
Formula:	C2 H4 Cl2	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	8.7E+1	days	THOMAS
Photolysis:		days	
Biodeg:	1.5E+2	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:	9.4E-1	days	THOMAS
Photolysis:		days	
Biodeg:	1.5E+2	days	FATERATE
Radio:		days	
Log Kow:	1.8E+0		CHEMFATE

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Dichloroethane, 1,1-

CAS Number: 000075-34-3

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10	Toxicity:	10	Toxicity:	10
Gas Mobility:	1.0000	Water Solub:	5.1E+3		
Gas Migration:	17	Distrib:	6.3E-2		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10	Toxicity:	10	Fresh Tox:	0
				Salt Tox:	0
Persistence		Persistence		Persistence	
River:	0.4000	River:	0.4000	River:	0.4000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	5.0	Fresh:	5.0
		Salt:	5.0	Salt:	5.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value
NAAQS/NESHAPS:		µg/m³	MCL/MCLG:		mg/L	Cancer Risk:	
Cancer Risk:		mg/m³	Cancer Risk:		mg/L	Non Cancer Risk:	7.8E+3
Non Cancer Risk:	5.2E-1	mg/m³	Non Cancer Risk:	3.7E+0	mg/L		
						CANCER RISK	
						Air:	pCi/m³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAL:		ppm
Cancer Risk:		mg/L	Cancer Risk:		mg/kg
Non Cancer Risk:	3.7E+0	mg/L	Non Cancer Risk:	1.4E+2	mg/kg
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Dichloroethane, 1,2-

CAS Number: 000107-06-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	9.1E-2	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		
Inhal Slope:	9.1E-2	(mg/kg/day)^-1	IRIS
Inhal Wt-of-Evid:	B2		
Oral ED10:	7.7E+0	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		
Inhal ED10:	7.7E+0	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		
Oral LD50:	7.7E+2	mg/kg	ACGIH
Dermal LD50:	2.8E+3	mg/kg	RTECS
Gas Inhal LC50:	1.0E+3	ppm	RTECS
Dust Inhal LC50:	5.0E+0	mg/L	RTECS

ACUTE

Fresh CMC:	$\mu\text{g/L}$
Salt CMC:	$\mu\text{g/L}$

CHRONIC

Fresh CCC:	$\mu\text{g/L}$
Salt CCC:	$\mu\text{g/L}$

Fresh Ecol LC50:	1.0E+5	$\mu\text{g/L}$	ECOTOX
Salt Ecol LC50:	1.1E+5	$\mu\text{g/L}$	ECOTOX

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>
Metal Contain:	No
Organic:	Yes
Gas:	Yes
Particulate:	No
Radionuclide:	No
Rad. Element:	No
Molecular Weight:	9.9E+1
Density:	1.2E+0
	g/mL @ 25.00 C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	7.9E+1	Torr	CHEMFATE
Henry's Law:	9.8E-4	atm-m ³ /mol	CHEMFATE
Water Solub:	8.5E+3	mg/L	CHEMFATE
Distrib Coef:	3.5E-2	ml/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	2.0E+0		ECOTOX
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:	2.0E+0		ECOTOX
Salt BCF:			
Log Kow:	1.5E+0		CHEMFATE
Water Solub:	8.5E+3	mg/L	CHEMFATE
Geo Mean Sol:			

OTHER DATA

Melting Point:	-3.6E+1	C
Boiling Point:	8.4E+1	C
Formula:	C ₂ H ₄ Cl ₂	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:	1.8E+7	days	CHEMFATE
Volatility:	8.7E+1	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+2	days	FATERATE
Radio:		days	

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
RIVER - Halflives			
Hydrolysis:	1.8E+7	days	CHEMFATE
Volatility:	9.6E-1	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+2	days	FATERATE
Radio:		days	

Log Kow:	1.5E+0	CHEMFATE
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CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Dichloroethane, 1,2-

CAS Number: 000107-06-2

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	100	Toxicity:	100	Toxicity:	100
Gas Mobility:	1.0000	Water Solub:	8.5E+3		
Gas Migration:	17	Distrib:	3.5E-2		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	100	Toxicity:	100	Fresh Tox:	10
Persistence		Persistence		Salt Tox:	1
River:	0.4000	River:	0.4000	Persistence	
Lake:	1.0000	Lake:	1.0000	River:	0.4000
		Bioaccumulation		Lake:	1.0000
		Fresh:	5.0	Bioaccumulation	
		Salt:	5.0	Fresh:	5.0
				Salt:	5.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value
NAAQS/NESHAPS:		µg/m³	MCL/MCLG:	5.0E-3	mg/L	Cancer Risk:	7.0E+0
Cancer Risk:	9.4E-5	mg/m³	Cancer Risk:	9.4E-4	mg/L	Non Cancer Risk:	
Non Cancer Risk:		mg/m³	Non Cancer Risk:		mg/L		
						CANCER RISK	
						Air:	pCi/m³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:	5.0E-3	mg/L	FDAAL:		ppm
Cancer Risk:	9.4E-4	mg/L	Cancer Risk:	3.5E-2	mg/kg
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Dichloroethylene, 1,1-

CAS Number: 000075-35-4

TOXICITY				PHYSICAL CHARACTERISTICS			
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Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	5.0E-2	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:	5.7E-2	mg/kg/day	IRIS	Organic:	Yes		
Oral Slope:		(mg/kg/day)^~1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	No		
Inhal Slope:	1.2E+0	(mg/kg/day)^~1	HEAST	Radionuclide:	No		
Inhal Wt-of-Evid:	C			Rad. Element:	No		
Oral ED10:	1.9E-1	mg/kg/day	EPA_ED10	Molecular Weight:	9.7E+1		
Oral ED10 Wgt:	C			Density:	1.2E+0	g/mL @ 20.00 C	
Inhal ED10:	1.9E-1	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	C						
Oral LD50:	1.9E+2	mg/kg	RTECS				
Dermal LD50:	2.4E+3	mg/kg	RTECS				
Gas Inhal LC50:	6.4E+3	ppm	RTECS				
Dust Inhal LC50:		mg/L					

ACUTE

Fresh CMC:	$\mu\text{g/L}$
Salt CMC:	$\mu\text{g/L}$

CHRONIC

Fresh CCC:	$\mu\text{g/L}$
Salt CCC:	$\mu\text{g/L}$

Fresh Ecol LC50:	9.0E+3	$\mu\text{g/L}$	ECOTOX
Salt Ecol LC50:	2.0E+5	$\mu\text{g/L}$	ECOTOX

PERSISTENCE			
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Parameter	Value	Unit	Source
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	8.7E+1	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+2	days	FATERATE
Radio:		days	

RIVER - Halflives			
Hydrolysis:		days	
Volatility:	9.3E-1	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+2	days	FATERATE
Radio:		days	

Log Kow: 2.1E+0 CHEMFATE

PHYSICAL CHARACTERISTICS			
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Parameter	Value	Unit	Source
Metal Contain:	No		
Organic:	Yes		
Gas:	Yes		
Particulate:	No		
Radionuclide:	No		
Rad. Element:	No		
Molecular Weight:	9.7E+1		
Density:	1.2E+0	g/mL @ 20.00 C	

MOBILITY			
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Parameter	Value	Unit	Source
Vapor Press:	6.0E+2	Torr	CHEMFATE
Henry's Law:	2.6E-2	atm-m3/mol	CHEMFATE
Water Solub:	2.3E+3	mg/L	CHEMFATE
Distrib Coef:	1.2E-1	ml/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
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Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:			
Salt BCF:			
Log Kow:	2.1E+0		CHEMFATE
Water Solub:	2.3E+3		CHEMFATE
Geo Mean Sol:		mg/L	

OTHER DATA			
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Melting Point:	-1.2E+2	C
Boiling Point:	3.2E+1	C
Formula:	C2 H2 Cl2	

CLASS INFORMATION			
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Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Dichloroethylene, 1,1-

CAS Number: 000075-35-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	100
Gas Mobility:	1.0000
Gas Migration:	17

Parameter	Value
Toxicity:	100
Water Solub:	2.3E+3
Distrib:	1.2E-1
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E+0

Parameter	Value
Toxicity:	100

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	100

Parameter	Value
Toxicity:	100

Parameter	Value
Fresh Tox:	100

Persistence	
River:	0.4000
Lake:	1.0000

Persistence	
River:	0.4000
Lake:	1.0000

Persistence	
River:	0.4000
Lake:	1.0000

Bioaccumulation	
Fresh:	50.0
Salt:	50.0

Bioaccumulation	
Fresh:	50.0
Salt:	50.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter	Value	Unit
NAAQS/NESHAPS:		
Cancer Risk:	7.1E-6	µg/m3
Non Cancer Risk:	2.1E-1	mg/m3

Parameter	Value	Unit
MCL/MCLG:	7.0E-3	MCL/MCLG:
Cancer Risk:		mg/L

Parameter	Value	Unit
Cancer Risk:	7.0E-3	mg/L
Non Cancer Risk:	1.8E+0	mg/L

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m3
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit
MCL/MCLG:	7.0E-3	mg/L
Cancer Risk:		mg/L
Non Cancer Risk:	1.8E+0	mg/L

Parameter	Value	Unit
FDAAL:		ppm
Cancer Risk:		mg/kg

Parameter	Value	Unit
ACUTE		
Fresh CMC:		µg/L
Salt CMC:		µg/L

CHRONIC		
Fresh CCC:		µg/L
Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Dichloroethylene, 1,2-

CAS Number: 000540-59-0

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	9.0E-3	mg/kg/day	HEAST	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	No		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	9.7E+1		
Oral ED10 Wgt:		mg/kg/day		Density:	1.3E+0	g/mL @	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:	7.7E+2	mg/kg	RTECS				
Dermal LD50:		mg/kg					
Gas Inhal LC50:	2.2E+4	ppm	ACGIH				
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	1.2E+5	µg/L	ECOTOX				
Salt Ecol LC50:		µg/L					
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days					
Volatility:	8.7E+1	days	THOMAS				
Photolysis:		days					
Biodeg:	1.8E+2	days	FATERATE				
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	9.4E-1	days	THOMAS				
Photolysis:		days					
Biodeg:	1.8E+2	days	FATERATE				
Radio:		days					
Log Kow:	2.0E+0		PHYSPROP				
CLASS INFORMATION				ENVIRONMENTAL			
Class	Parent Substance			Food Chain	Value	Unit	Source
				FRESH BCF:			
				SALT BCF:			
				LOG KOW:	2.0E+0		PHYSPROP
				WATER SOLUB:	6.3E+3		CHEMFATE
				geo mean sol:		mg/L	
OTHER DATA				MELTING POINT:			
				BOILING POINT:	5.5E+1	C	
				FORMULA:	C2 H2 Cl2		

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Dichloroethylene, 1,2-

CAS Number: 000540-59-0

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Gas Mobility:	1.0000
Gas Migration:	17

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Water Solub:	6.3E+3
Distrib:	1.4E+1
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E-2

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	1
Salt Tox:	1

Persistence	River:	0.4000
	Lake:	1.0000

Persistence	River:	0.4000
	Lake:	1.0000

Persistence	River:	0.4000
	Lake:	1.0000

Bioaccumulation	Fresh:	50.0
	Salt:	50.0

Bioaccumulation	Fresh:	50.0
	Salt:	50.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		<u>µg/m3</u>	MCL/MCLG:		<u>mg/L</u>	Cancer Risk:		<u>mg/kg</u>
Cancer Risk:		<u>mg/m3</u>	Cancer Risk:		<u>mg/L</u>	Non Cancer Risk:	7.0E+2	<u>mg/kg</u>
Non Cancer Risk:		<u>mg/m3</u>	Non Cancer Risk:	3.3E-1	<u>mg/L</u>			<u>pCi/L</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL:		<u>pCi/L</u>	UMTRCA:		<u>pCi/kg</u>
			CANCER RISK		
Air:		<u>pCi/m3</u>			
DW:		<u>pCi/L</u>			
FC:		<u>pCi/kg</u>			
Soil Ing:		<u>pCi/kg</u>			
Soil Gam:		<u>pCi/kg</u>			

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>mg/L</u>
Cancer Risk:		<u>mg/L</u>
Non Cancer Risk:	3.3E-1	<u>mg/L</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
FDAAL:		<u>ppm</u>
Cancer Risk:		<u>mg/kg</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:		<u>µg/L</u>

CHRONIC	
Fresh CCC:	
Salt CCC:	

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Dichloroethylene, cis-1,2-

CAS Number: 000156-59-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.0E-2	mg/kg/day	HEAST
Inhal RfD:		mg/kg/day	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Inhal Wt-of-Evid:			
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:	1.4E+4	ppm	RTECS
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>
Metal Contain:	No
Organic:	Yes
Gas:	Yes
Particulate:	No
Radionuclide:	No
Rad. Element:	No
Molecular Weight:	9.7E+1
Density:	1.3E+0 g/mL @ 20.00 C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.0E+2	Torr	CHEMFATE
Henry's Law:	4.1E-3	atm-m3/mol	CHEMFATE
Water Solub:	3.5E+3	mg/L	CHEMFATE
Distrib Coef:	7.1E-2	ml/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	1.9E+0		CHEMFATE
Water Solub:	3.5E+3		CHEMFATE
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-8.0E+1	C
Boiling Point:	6.0E+1	C
Formula:	C ₂ H ₂ Cl ₂	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	8.7E+1	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:	9.4E-1	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	1.9E+0		CHEMFATE

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Dichloroethylene, cis-1,2-

CAS Number: 000156-59-2

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	100	Toxicity:	100	Toxicity:	100
Gas Mobility:	1.0000	Water Solub:	3.5E+3		
Gas Migration:	17	Distrib:	7.1E-2		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	100	Toxicity:	100	Fresh Tox:	0
				Salt Tox:	0
Persistence		Persistence		Persistence	
River:	0.4000	River:	0.4000	River:	0.4000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	5.0	Fresh:	5.0
		Salt:	5.0	Salt:	5.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		<u>µg/m³</u>	MCL/MCLG:	7.0E-2	<u>mg/L</u>	Cancer Risk:		<u>mg/kg</u>	MCL:		<u>pCi/L</u>
Cancer Risk:		<u>mg/m³</u>	Cancer Risk:		<u>mg/L</u>	Non Cancer Risk:	7.8E+2	<u>mg/kg</u>	UMTRCA:		<u>pCi/kg</u>
Non Cancer Risk:		<u>mg/m³</u>	Non Cancer Risk:	3.6E-1	<u>mg/L</u>				CANCER RISK		
									Air:		<u>pCi/m³</u>
									DW:		<u>pCi/L</u>
									FC:		<u>pCi/kg</u>
									Soil Ing:		<u>pCi/kg</u>
									Soil Gam:		<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:	7.0E-2	<u>mg/L</u>	FDAAL:		<u>ppm</u>	ACUTE		
Cancer Risk:		<u>mg/L</u>	Cancer Risk:		<u>mg/kg</u>	Fresh CMC:		<u>µg/L</u>
Non Cancer Risk:	3.6E-1	<u>mg/L</u>	Non Cancer Risk:	1.4E+1	<u>mg/kg</u>	Salt CMC:		<u>µg/L</u>
						CHRONIC		
						Fresh CCC:		<u>µg/L</u>
						Salt CCC:		<u>µg/L</u>

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Dichloroethylene, trans-1,2-

CAS Number: 000156-60-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-2	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Inhal Wt-of-Evid:			
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:	1.3E+3	mg/kg	ACGIH
Dermal LD50:	5.0E+3	mg/kg	RTECS
Gas Inhal LC50:	2.2E+4	ppm	ACGIH
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	1.7E+5	µg/L	ECOTOX
Salt Ecol LC50:		µg/L	

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>
Metal Contain:	No
Organic:	Yes
Gas:	Yes
Particulate:	No
Radionuclide:	No
Rad. Element:	No
Molecular Weight:	9.7E+1
Density:	1.3E+0 g/mL @ 20.00 C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.3E+2	Torr	CHEMFATE
Henry's Law:	9.4E-3	atm-m3/mol	CHEMFATE
Water Solub:	6.3E+3	mg/L	CHEMFATE
Distrib Coef:	1.0E-1	ml/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	2.1E+0		CHEMFATE
Water Solub:	6.3E+3		CHEMFATE
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-5.0E+1	C
Boiling Point:	4.9E+1	C
Formula:	C ₂ H ₂ Cl ₂	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	8.7E+1	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:	9.3E-1	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	2.1E+0		CHEMFATE

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Dichloroethylene, trans-1,2-

CAS Number: 000156-60-5

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	100	Toxicity:	100	Toxicity:	100
Gas Mobility:	1.0000	Water Solub:	6.3E+3		
Gas Migration:	17	Distrib:	1.0E-1		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	100	Toxicity:	100	Fresh Tox:	1
				Salt Tox:	1
Persistence		Persistence		Persistence	
River:	0.4000	River:	0.4000	River:	0.4000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	50.0	Fresh:	50.0
		Salt:	50.0	Salt:	50.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:	1.0E-1	mg/L	Cancer Risk:	
Cancer Risk:		mg/m ³	Cancer Risk:		mg/L	Non Cancer Risk:	1.6E+3
Non Cancer Risk:		mg/m ³	Non Cancer Risk:	7.3E-1	mg/L		
						UMTRCA:	
						CANCER RISK	
						Air:	pCi/m ³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:	1.0E-1	mg/L	FDAAL:		ppm
Cancer Risk:		mg/L	Cancer Risk:		mg/kg
Non Cancer Risk:	7.3E-1	mg/L	Non Cancer Risk:	2.7E+1	mg/kg
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Dichlorophenol, 2,4-

CAS Number: 000120-83-2

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	3.0E-3	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.6E+2		
Oral ED10 Wgt:		mg/kg/day		Density:		g/mL @	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:	1.3E+3	mg/kg	RTECS				
Dermal LD50:	3.2E+3	mg/kg	RTECS				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	2.6E+0	µg/L	ECOTOX				
Salt Ecol LC50:	5.1E+3	µg/L	ECOTOX				
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days					
Volatility:	1.2E+2	days	THOMAS				
Photolysis:	1.3E-1	days	FATERATE				
Biodeg:	6.0E+0	days	CHEMFATE				
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	6.9E+0	days	THOMAS				
Photolysis:	1.3E-1	days	FATERATE				
Biodeg:	6.0E+0	days	CHEMFATE				
Radio:		days					
Log Kow:	2.9E+0		CHEMFATE				
ENVIRONMENTAL							
Fresh BCF:	9.8E+2		ECOTOX				
Salt BCF:							
Log Kow:	2.9E+0		CHEMFATE				
Water Solub:	4.5E+3		CHEMFATE				
Geo Mean Sol:		mg/L					
CLASS INFORMATION				OTHER DATA			
Class	Parent Substance			Melting Point:	4.5E+1	C	
				Boiling Point:	2.1E+2	C	
				Formula:	C6 H4 Cl2 O		

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Dichlorophenol, 2,4-

CAS Number: 000120-83-2

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	1000	Toxicity:	1000	Toxicity:	1000
Gas Mobility:	0.2000	Water Solub:	4.5E+3		
Gas Migration:	11	Distrib:	2.9E-1		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	1000	Toxicity:	1000	Fresh Tox:	10000
Persistence		Persistence		Salt Tox:	100
River:	0.0007	River:	0.0007		
Lake:	0.0700	Lake:	0.0700		
		Bioaccumulation			
		Fresh:	50.0		
		Salt:	50.0		
				Bioaccumulation	
				Fresh:	500.0
				Salt:	500.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIOMUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		<u>µg/m³</u>	MCL/MCLG:		<u>mg/L</u>	Cancer Risk:	
Cancer Risk:		<u>mg/m³</u>	Cancer Risk:		<u>mg/L</u>	Non Cancer Risk:	2.3E+2
Non Cancer Risk:		<u>mg/m³</u>	Non Cancer Risk:	1.1E-1	<u>mg/L</u>		
						MCL:	
						mg/kg	
						UMTRCA:	
						CANCER RISK	
						Air:	<u>pCi/m³</u>
						DW:	<u>pCi/L</u>
						FC:	<u>pCi/kg</u>
						Soil Ing:	<u>pCi/kg</u>
						Soil Gam:	<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>mg/L</u>	FDAAL:		<u>ppm</u>	ACUTE		
Cancer Risk:		<u>mg/L</u>	Cancer Risk:		<u>mg/kg</u>	Fresh CMC:		<u>µg/L</u>
Non Cancer Risk:	1.1E-1	<u>mg/L</u>	Non Cancer Risk:	4.1E+0	<u>mg/kg</u>	Salt CMC:		<u>µg/L</u>
						CHRONIC		
						Fresh CCC:		<u>µg/L</u>
						Salt CCC:		<u>µg/L</u>

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Dichloropropane, 1,2-

CAS Number: 000078-87-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:	1.1E-3	mg/kg/day	IRIS
Oral Slope:	6.8E-2	(mg/kg/day) ⁻¹	HEAST
Oral Wt-of-Evid:	B2		
Inhal Slope:		(mg/kg/day) ⁻¹	
Inhal Wt-of-Evid:			
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:	2.0E+3	mg/kg	ACGIH
Dermal LD50:	8.8E+3	mg/kg	RTECS
Gas Inhal LC50:	7.2E+2	ppm	ACGIH
Dust Inhal LC50:	1.2E+4	mg/L	RTECS

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L

Fresh Ecol LC50:	4.2E+4	μg/L	ECOTOX
Salt Ecol LC50:	5.3E+4	μg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:	6.7E+6	days	CHEMFATE
Volatility:	9.3E+1	days	THOMAS
Photolysis:		days	
Biodeg:	1.3E+3	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:	6.7E+6	days	CHEMFATE
Volatility:	1.0E+0	days	THOMAS
Photolysis:		days	
Biodeg:	1.3E+3	days	FATERATE
Radio:		days	
Log Kow:	2.0E+0		CHEMFATE

Log Kow: 2.0E+0 CHEMFATE

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>
Metal Contain:	No
Organic:	Yes
Gas:	Yes
Particulate:	No
Radionuclide:	No
Rad. Element:	No
Molecular Weight:	1.1E+2
Density:	1.2E+0 g/mL @ 25.00 C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	5.2E+1	Torr	CHEMFATE
Henry's Law:	2.8E-3	atm-m ³ /mol	CHEMFATE
Water Solub:	2.8E+3	mg/L	CHEMFATE
Distrib Coef:	8.7E-2	ml/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:	2.0E+0		CHEMFATE
Salt BCF:			
Log Kow:	2.0E+0		CHEMFATE
Water Solub:	2.8E+3		CHEMFATE
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-7.0E+1	C
Boiling Point:	9.6E+1	C
Formula:	C ₃ H ₆ Cl ₂	

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Dichloropropane, 1,2-

CAS Number: 000078-87-5

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	1000	Toxicity:	1000	Toxicity:	1000
Gas Mobility:	1.0000	Water Solub:	2.8E+3		
Gas Migration:	17	Distrib:	8.7E-2		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	1000	Toxicity:	1000	Fresh Tox:	10
				Salt Tox:	10
Persistence		Persistence		Persistence	
River:	0.4000	River:	0.4000	River:	0.4000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	50.0	Fresh:	50.0
		Salt:	50.0	Salt:	50.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m³	MCL/MCLG:	5.0E-3	mg/L	Parameter	Value	Unit
Cancer Risk:		mg/m³	Cancer Risk:	1.3E-3	mg/L	Cancer Risk:	9.4E+0	pCi/L
Non Cancer Risk:	4.2E-3	mg/m³	Non Cancer Risk:		mg/L	Non Cancer Risk:		pCi/kg
								CANCER RISK
								Air:
								pCi/m³
								DW:
								pCi/L
								FC:
								pCi/kg
								Soil Ing:
								pCi/kg
								Soil Gam:
								pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:	5.0E-3	mg/L	Parameter	Value	Unit	ACUTE	Value	Unit
Cancer Risk:	1.3E-3	mg/L	FDAAL:		ppm			
Non Cancer Risk:		mg/L	Cancer Risk:	4.6E-2	mg/kg	Fresh CMC:		µg/L
			Non Cancer Risk:		mg/kg	Salt CMC:		µg/L
								CHRONIC
								Fresh CCC:
								µg/L
								Salt CCC:
								µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Dichloropropene, 1,3-

CAS Number: 000542-75-6

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-2	mg/kg/day	IRIS
Inhal RfD:	5.7E-3	mg/kg/day	IRIS
Oral Slope:	1.0E-1	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		
Inhal Slope:	1.4E-2	(mg/kg/day)^-1	HEAST
Inhal Wt-of-Evid:	B2		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:	4.7E+2	mg/kg	ACGIH
Dermal LD50:	5.0E+2	mg/kg	ACGIH
Gas Inhal LC50:	1.0E+3	ppm	RTECS
Dust Inhal LC50:		mg/L	

ACUTE

Fresh CMC:	$\mu\text{g/L}$
Salt CMC:	$\mu\text{g/L}$

CHRONIC

Fresh CCC:	$\mu\text{g/L}$
Salt CCC:	$\mu\text{g/L}$

Fresh Ecol LC50:	2.1E+2	$\mu\text{g/L}$	ECOTOX
Salt Ecol LC50:	7.0E+2	$\mu\text{g/L}$	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:	1.1E+1	days	FATERATE
Volatility:	9.3E+1	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+1	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:	1.1E+1	days	FATERATE
Volatility:	1.0E+0	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+1	days	FATERATE
Radio:		days	
Log Kow:	1.6E+0		CHEMFATE

Log Kow: 1.6E+0 CHEMFATE

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>
Metal Contain:	No
Organic:	Yes
Gas:	Yes
Particulate:	No
Radionuclide:	No
Rad. Element:	No
Molecular Weight:	1.1E+2
Density:	1.2E+0 g/mL @ 25.00 C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.4E+1	Torr	CHEMFATE
Henry's Law:	1.8E-2	atm-m3/mol	CHEMFATE
Water Solub:	2.8E+3	mg/L	CHEMFATE
Distrib Coef:	9.1E-2	ml/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:			
Salt BCF:			
Log Kow:	1.6E+0		CHEMFATE
Water Solub:	2.8E+3		CHEMFATE
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:		C
Boiling Point:	1.1E+2	C
Formula:	C3 H4 Cl2	

Part 3

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Dichloropropene, 1,3-

CAS Number: 000542-75-6

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Gas Mobility:	1.0000
Gas Migration:	17

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Water Solub:	2.8E+3
Distrib:	9.1E-2
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E+0

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	1000
Salt Tox:	1000

Persistence	
River:	0.4000
Lake:	0.4000

Persistence	
River:	0.4000
Lake:	0.4000

Persistence	
River:	0.4000
Lake:	0.4000

Bioaccumulation	
Fresh:	5.0
Salt:	5.0

Bioaccumulation	
Fresh:	5.0
Salt:	5.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		µg/m ³
Cancer Risk:	6.1E-4	mg/m ³
Non Cancer Risk:	2.1E-2	mg/m ³

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L
Cancer Risk:	8.5E-4	mg/L
Non Cancer Risk:	1.1E+0	mg/L

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Cancer Risk:	6.4E+0	mg/kg
Non Cancer Risk:	2.3E+3	mg/kg

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m ³
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L
Cancer Risk:	8.5E-4	mg/L
Non Cancer Risk:	1.1E+0	mg/L

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
FDAAL:		ppm
Cancer Risk:	3.2E-2	mg/kg
Non Cancer Risk:	4.1E+1	mg/kg

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:		µg/L
Salt CMC:		µg/L

CHRONIC		
Fresh CCC:		µg/L
Salt CCC:		µg/L

REFERENCE 2

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Date: 1/28/2004
Chemical: Dieldrin

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000060-57-1

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value		
Oral RfD:	5.0E-5	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	1.6E+1	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:	1.6E+1	(mg/kg/day)^-1	IRIS	Radionuclide:	No		
Inhal Wt-of-Evid:	B2			Rad. Element:	No		
Oral ED10:	4.2E-3	mg/kg/day	EPA_ED10	Molecular Weight:	3.8E+2		
Oral ED10 Wgt:	B2			Density:	1.8E+0	g/mL @ 25.00	C
Inhal ED10:	4.2E-3	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	B2						
Oral LD50:	3.7E+1	mg/kg	ACGIH				
Dermal LD50:	6.0E+1	mg/kg	ACGIH				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:	2.4E-1	K		WATCRIT			
Salt CMC:	7.1E-1	G	µg/L	WATCRIT			
CHRONIC							
Fresh CCC:	5.6E-2	K, O	µg/L	WATCRIT			
Salt CCC:	1.9E-3	G, aa	µg/L	WATCRIT			
Fresh Ecol LC50:	3.5E-1		µg/L	ECOTOX			
Salt Ecol LC50:	4.0E-1		µg/L	ECOTOX			
PERSISTENCE							
Parameter	Value	Unit	Source	ENVIRONMENTAL			
LAKE - Halflives							
Hydrolysis:	3.8E+3	days	CHEMFATE	Fresh BCF:	5.7E+5		ECOTOX
Volatility:	1.7E+2	days	THOMAS	Salt BCF:	2.9E+3		ECOTOX
Photolysis:		days					
Biodeg:	1.1E+3	days	FATERATE				
Radio:		days					
RIVER - Halflives							
Hydrolysis:	3.8E+3	days	CHEMFATE	Log Kow:	4.5E+0		CHEMFATE
Volatility:	5.0E+0	days	THOMAS	Water Solub:	2.0E-1		CHEMFATE
Photolysis:		days		Geo Mean Sol:		mg/L	
Biodeg:	1.1E+3	days	FATERATE				
Radio:		days					
OTHER DATA							
Log Kow:	4.5E+0		CHEMFATE	Melting Point:	1.8E+2	C	
				Boiling Point:		C	
				Formula:	C12 H8 Cl6 O		

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Dieldrin

CAS Number: 000060-57-1

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:	0.0020	Water Solub:	2.0E-1		
Gas Migration:	6	Distrib:	4.3E+1		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-2		
		Non Liq. Karst:	2.0E-3		
		Non Karst:	2.0E-5		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	10000
				Salt Tox:	10000
Persistence		Persistence		Persistence	
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	50000.0	Fresh:	50000.0
		Salt:	5000.0	Salt:	50000.0

BENCHMARKS

AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:	4.0E-2	mg/kg	MCL:		pCi/L
Cancer Risk:	5.3E-7	mg/m ³	Cancer Risk:	5.3E-6	mg/L	Non Cancer Risk:	3.9E+0	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m ³	Non Cancer Risk:	1.8E-3	mg/L				CANCER RISK		
									Air:		pCi/m ³
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L	FDAAL:	3.0E-1	ppm	ACUTE		
Cancer Risk:	5.3E-6	mg/L	Cancer Risk:	2.0E-4	mg/kg	Fresh CMC:	2.4E-1 ^K	µg/L
Non Cancer Risk:	1.8E-3	mg/L	Non Cancer Risk:	6.8E-2	mg/kg	Salt CMC:	7.1E-1 ^G	µg/L
						CHRONIC		
						Fresh CCC:	5.6E-2 ^{K,O}	µg/L
						Salt CCC:	1.9E-3 ^{G,aa}	µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
Chemical: Diethyl phthalate

CAS Number: 000084-66-2

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	8.0E-1	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	2.2E+2		
Oral ED10 Wgt:				Density:	1.2E+0	g/mL @ 14.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	9.5E+3	mg/kg	ACGIH				
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	1.2E+4	µg/L	ECOTOX				
Salt Ecol LC50:	4.9E+3	µg/L	ECOTOX				
PERSISTENCE							
Parameter	Value	Unit	Source	ENVIRONMENTAL			
LAKE - Halflives							
Hydrolysis:	3.2E+3	days	FATERATE	Fresh BCF:	2.1E+2		ECOTOX
Volatility:	2.2E+2	days	THOMAS	Salt BCF:			
Photolysis:		days					
Biodeg:	5.6E+1	days	FATERATE				
Radio:		days					
RIVER - Halflives							
Hydrolysis:	3.2E+3	days	FATERATE	Log Kow:	2.5E+0		CHEMFATE
Volatility:	8.3E+1	days	THOMAS	Water Solub:	1.1E+3		CHEMFATE
Photolysis:		days		Geo Mean Sol:		mg/L	
Biodeg:	5.6E+1	days	FATERATE				
Radio:		days					
Log Kow:	2.5E+0		CHEMFATE	OTHER DATA			
				Melting Point:	-4.1E+1	C	
				Boiling Point:	3.0E+2	C	
				Formula:	C12 H14 O4		

CLASS INFORMATION

<u>Class</u>	<u>Parent Substance</u>
--------------	-------------------------

REFERENCE 2

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Date: 1/28/2004
 Chemical: Diethyl phthalate

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000084-66-2

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	1	Toxicity:	1	Toxicity:	1
Gas Mobility:	0.2000	Water Solub:	1.1E+3		
Gas Migration:	11	Distrib:	4.4E+1		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-2		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E-2		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	1	Toxicity:	1	Fresh Tox:	10
				Salt Tox:	100
Persistence		Persistence		Persistence	
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	500.0	Fresh:	500.0
		Salt:	500.0	Salt:	500.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:	mg/L	mg/kg	Cancer Risk:	mg/L
Cancer Risk:		mg/m ³	Cancer Risk:	mg/L	mg/kg	Non Cancer Risk:	6.3E+4
Non Cancer Risk:		mg/m ³	Non Cancer Risk:	2.9E+1	mg/L		
						CANCER RISK	
						Air:	pCi/m ³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L	FDAAL:	ppm	ACUTE
Cancer Risk:		mg/L	Cancer Risk:	mg/kg	Fresh CMC:
Non Cancer Risk:	2.9E+1	mg/L	Non Cancer Risk:	1.1E+3	Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:
					µg/L
					µg/L

REFERENCE 2

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Date: 1/28/2004
 Chemical: Dimethyl phenol, 2,4-

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000105-67-9

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	2.0E-2	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.2E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	9.6E-1	g/mL @ 20.00 C	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg					
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	1.8E+3	µg/L	ECOTOX				
Salt Ecol LC50:	9.4E+2	µg/L	ECOTOX				
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		Vapor Press:	9.8E-2	Torr	CHEMFATE
Volatility:	1.3E+2	days	THOMAS	Henry's Law:	2.0E-6	atm-m3/mol	CHEMFATE
Photolysis:		days		Water Solub:	7.9E+3	mg/L	CHEMFATE
Biodeg:	7.0E+0	days	FATERATE	Distrib Coef:	3.2E+1	ml/g	DITOR_KD
Radio:		days		Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	3.0E+1	days	THOMAS				
Photolysis:		days					
Biodeg:	7.0E+0	days	FATERATE				
Radio:		days					
Log Kow:	2.3E+0		CHEMFATE				
CLASS INFORMATION				BIOACCUMULATION			
Class	Parent Substance			Parameter	Value	Unit	Source
				FOOD CHAIN			
				Fresh BCF:	1.5E+2		ECOTOX
				Salt BCF:			
ENVIRONMENTAL							
				Fresh BCF:	1.5E+2		ECOTOX
				Salt BCF:			
				Log Kow:	2.3E+0		CHEMFATE
				Water Solub:	7.9E+3	mg/L	CHEMFATE
				Geo Mean Sol:			
OTHER DATA				Melting Point:	2.5E+1	C	
				Boiling Point:	2.1E+2	C	
				Formula:	C8 H10 O		

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Dimethyl phenol, 2,4-

CAS Number: 000105-67-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Gas Mobility:	0.2000
Gas Migration:	11

GROUND WATER PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Water Solub:	7.9E+3
Distrib:	3.2E+1
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E-2

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

SURFACE WATER PATHWAY

DRINKING WATER

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

HUMAN FOOD CHAIN

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	100
Salt Tox:	1000

Persistence	
River:	1.0000
Lake:	0.4000

Persistence	
River:	1.0000
Lake:	0.4000

Persistence	
River:	1.0000
Lake:	0.4000

Bioaccumulation

Fresh:	500.0
Salt:	500.0

Bioaccumulation	
Fresh:	500.0
Salt:	500.0

BENCHMARKS

AIR PATHWAY

Parameter	Value
NAAQS/NESHAPS:	
Cancer Risk:	
Non Cancer Risk:	

GROUND WATER PATHWAY

Parameter	Value
Unit	Unit
µg/m ³	MCL/MCLG:
mg/m ³	Cancer Risk:
mg/m ³	Non Cancer Risk:

SOIL EXPOSURE PATHWAY

Parameter	Value
Unit	Unit
mg/kg	Cancer Risk:
mg/kg	Non Cancer Risk:

RADIONUCLIDE

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m ³
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter	Value
MCL/MCLG:	
Cancer Risk:	
Non Cancer Risk:	7.3E-1

HUMAN FOOD CHAIN

Parameter	Value
Unit	Unit
ppm	FDAAL:
mg/kg	Cancer Risk:
mg/kg	Non Cancer Risk:

ENVIRONMENTAL

Parameter	Value	Unit
ACUTE		
Fresh CMC:		µg/L
Salt CMC:		µg/L
CHRONIC		
Fresh CCC:		µg/L
Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Dinitrobenzene, 1,3-

CAS Number: 000099-65-0

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	1.0E-4	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.7E+2		
Oral ED10 Wgt:				Density:	1.6E+0	g/mL @ 18.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	5.0E+0	mg/kg	ACGIH				
Dermal LD50:	1.9E+3	mg/kg	RTECS				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	1.2E+3	µg/L	ECOTOX				
Salt Ecol LC50:		µg/L					

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives				FOOD CHAIN			
Hydrolysis:		days		Fresh BCF:			
Volatility:	2.6E+2	days	THOMAS	Salt BCF:			
Photolysis:	2.3E+1	days	CHEMFATE				
Biodeg:	1.8E+2	days	FATERATE	Log Kow:	1.5E+0		CHEMFATE
Radio:		days		Water Solub:	8.6E+2	mg/L	CHEMFATE
RIVER - Halflives				Geo Mean Sol:			
Hydrolysis:		days					
Volatility:	1.4E+2	days	THOMAS				
Photolysis:	2.3E+1	days	CHEMFATE	Melting Point:	9.0E+1	C	
Biodeg:	1.8E+2	days	FATERATE	Boiling Point:	2.9E+2	C	
Radio:		days		Formula:	C6 H4 N2 O4		
Log Kow:	1.5E+0		CHEMFATE				

CLASS INFORMATION			
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Class Parent Substance

REFERENCE 2

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Date: 1/28/2004
 Chemical: Dinitrobenzene, 1,3-

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000099-65-0

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:	0.0200	Water Solub:	8.6E+2		
Gas Migration:	6	Distrib:	4.4E+0		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	100
				Salt Tox:	100
Persistence		Persistence		Persistence	
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	0.4000	Lake:	0.4000	Lake:	0.4000
		Bioaccumulation		Bioaccumulation	
		Fresh:	5.0	Fresh:	5.0
		Salt:	5.0	Salt:	5.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		µg/m³	MCL/MCLG:		mg/L	Cancer Risk:	
Cancer Risk:		mg/m³	Cancer Risk:		mg/L	Non Cancer Risk:	7.8E+0
Non Cancer Risk:		mg/m³	Non Cancer Risk:	3.7E-3	mg/L		
						MCL:	
						UMTRCA:	
						CANCER RISK	
						Air:	pCi/m³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L	FDAAL:		ppm
Cancer Risk:		mg/L	Cancer Risk:		mg/kg
Non Cancer Risk:	3.7E-3	mg/L	Non Cancer Risk:	1.4E-1	mg/kg
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Dioxin 1,4-

CAS Number: 000290-67-5

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radiouclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:	2.9E+1	mg/kg/day	SPHEM	Molecular Weight:	8.4E+1		
Oral ED10 Wgt:	B2			Density:	1.1E+0	g/mL @ 20.00	C
Inhal ED10:	2.9E+1	mg/kg/day	SPHEM				
Inhal ED10 Wgt:	B2						
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:		µg/L					
Salt Ecol LC50:		µg/L					
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		Vapor Press:		Torr	
Volatility:		days		Henry's Law:		atm-m3/mol	
Photolysis:		days		Water Solub:		mg/L	
Biodeg:		days		Distrib Coef:		ml/g	
Radio:		days		Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:		days					
Log Kow:							
CLASS INFORMATION				BIOACCUMULATION			
Class	Parent Substance			Parameter	Value	Unit	Source
				FOOD CHAIN			
				Fresh BCF:			
				Salt BCF:			
ENVIRONMENTAL							
				Fresh BCF:			
				Salt BCF:			
				Log Kow:			
				Water Solub:			
				Geo Mean Sol:		mg/L	
OTHER DATA				Melting Point:			
				Boiling Point:	7.6E+1	C	
				Formula:	C4 H4 O2		

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Dioxin 1,4-

CAS Number: 000290-67-5

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	10
Gas Mobility:	
Gas Migration:	

Parameter	Value
Toxicity:	10
Water Solub:	
Distrib:	
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	
Non Liq. Karst:	
Non Karst:	

Parameter	Value
Toxicity:	10

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	10

Parameter	Value
Toxicity:	10

Parameter	Value
Fresh Tox:	0
Salt Tox:	0

Persistence	
River:	0.4000
Lake:	0.0700

Persistence	
River:	0.4000
Lake:	0.0700

Persistence	
River:	0.4000
Lake:	0.0700

Bioaccumulation	
Fresh:	0.5
Salt:	0.5

Bioaccumulation	
Fresh:	0.5
Salt:	0.5

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value
NAAQS/NESHAPS:	$\mu\text{g}/\text{m}^3$
Cancer Risk:	mg/m^3
Non Cancer Risk:	mg/m^3

Parameter	Value
MCL/MCLG:	mg/L
Cancer Risk:	mg/L
Non Cancer Risk:	mg/L

Parameter	Value
Cancer Risk:	mg/kg
Non Cancer Risk:	mg/L

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m^3
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
MCL/MCLG:	mg/L
Cancer Risk:	mg/L
Non Cancer Risk:	mg/L

Parameter	Value
FDAAL:	ppm
Cancer Risk:	mg/kg
Non Cancer Risk:	mg/kg

Parameter	Value
ACUTE	
Fresh CMC:	
Salt CMC:	

CHRONIC	
Fresh CCC:	
Salt CCC:	

Parameter	Value
	$\mu\text{g}/\text{L}$
	$\mu\text{g}/\text{L}$
	$\mu\text{g}/\text{L}$

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Diphenylhydrazine, 1,2-

CAS Number: 000122-66-7

TOXICITY				PHYSICAL CHARACTERISTICS			
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Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	8.0E-1	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:	8.0E-1	(mg/kg/day)^-1	HEAST	Radionuclide:	No		
Inhal Wt-of-Evid:	B2			Rad. Element:	No		
Oral ED10:	2.3E-1	mg/kg/day	EPA_ED10	Molecular Weight:	1.8E+2		
Oral ED10 Wgt:	B1			Density:	1.2E+0	g/mL @ 16.00	C
Inhal ED10:	2.3E-1	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	B1						
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	2.3E+2	µg/L	ECOTOX				
Salt Ecol LC50:		µg/L					
MOBILITY							
Parameter	Value	Unit	Source	Vapor Press:	4.3E-4	Torr	CHEMFATE
				Henry's Law:	1.5E-6	atm-m3/mol	CHEMFATE
				Water Solub:	6.8E+1	mg/L	CHEMFATE
				Distrib Coef:	1.2E+2	ml/g	DITOR_KD
				Geo Mean Sol:		mg/L	
BIOACCUMULATION							
Parameter	Value	Unit	Source	FOOD CHAIN			
				Fresh BCF:			
				Salt BCF:			
ENVIRONMENTAL							
				Fresh BCF:			
				Salt BCF:			
				Log Kow:	2.9E+0		CHEMFATE
				Water Solub:	6.8E+1		CHEMFATE
				Geo Mean Sol:		mg/L	
OTHER DATA							
				Melting Point:	1.3E+2	C	
				Boiling Point:		C	
				Formula:	C12 H12 N2		
Log Kow:	2.9E+0		CHEMFATE				

PERSISTENCE			
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Parameter	Value	Unit	Source
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	1.4E+2	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+2	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:	2.3E+1	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+2	days	FATERATE
Radio:		days	
Log Kow:	2.9E+0		CHEMFATE

CLASS INFORMATION		
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Class Parent Substance

REFERENCE 2

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Date: 1/28/2004
 Chemical: Diphenylhydrazine, 1,2-

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000122-66-7

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000
Gas Mobility:	0.0200
Gas Migration:	6

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000
Water Solub:	6.8E+1
Distrib:	1.2E+2
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	2.0E-1
Non Karst:	2.0E-3

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	1000
Salt Tox:	1000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation

Fresh:	50.0
Salt:	50.0

Bioaccumulation

Fresh:	50.0
Salt:	50.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:	
Cancer Risk:	1.1E-5
Non Cancer Risk:	

<u>Parameter</u>	<u>Value</u>
Unit	
µg/m ³	
MCL/MCLG:	
Cancer Risk:	1.1E-4
Non Cancer Risk:	

<u>Parameter</u>	<u>Value</u>
Unit	
mg/L	
Cancer Risk:	8.0E-1
Non Cancer Risk:	

<u>Parameter</u>	<u>Value</u>
Unit	
mg/kg	
MCL:	
UMTRCA:	
CANCER RISK	
Air:	pCi/m ³
DW:	pCi/L
FC:	pCi/kg
Soil Ing:	pCi/kg
Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	
Cancer Risk:	1.1E-4
Non Cancer Risk:	

<u>Parameter</u>	<u>Value</u>
Unit	
mg/L	
FDAAL:	
Cancer Risk:	3.9E-3
Non Cancer Risk:	

<u>Parameter</u>	<u>Value</u>
Unit	
ACUTE	
Fresh CMC:	
Salt CMC:	

CHRONIC	
Fresh CCC:	
Salt CCC:	

<u>Unit</u>	
µg/L	
µg/L	

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Disulfoton

CAS Number: 000298-04-4

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	4.0E-5	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	2.7E+2		
Oral ED10 Wgt:				Density:	1.1E+0	g/mL @ 20.00 C	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	2.3E+0	mg/kg	ACGIH				
Dermal LD50:	6.0E+0	mg/kg	ACGIH				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:	2.0E-1	mg/L	RTECS				
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	2.7E+0	µg/L	ECOTOX				
Salt Ecol LC50:	8.0E+1	µg/L	ECOTOX				
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives				Vapor Press:	1.8E-4	Torr	CHEMFATE
Hydrolysis:	4.8E+2	days	CHEMFATE	Henry's Law:	4.0E-6	atm-m ³ /mol	CHEMFATE
Volatility:	1.7E+2	days	THOMAS	Water Solub:	1.6E+1	mg/L	CHEMFATE
Photolysis:		days		Distrib Coef:	1.4E+3	ml/g	DITOR_KD
Biodeg:	2.1E+1	days	FATERATE	Geo Mean Sol:		mg/L	
Radio:		days					
RIVER - Halflives							
Hydrolysis:	4.8E+2	days	CHEMFATE				
Volatility:	2.0E+1	days	THOMAS				
Photolysis:		days					
Biodeg:	2.1E+1	days	FATERATE				
Radio:		days					
Log Kow:	4.0E+0		CHEMFATE				
CLASS INFORMATION							
Class				Parent Substance			

REFERENCE 2

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Date: 1/28/2004
Chemical: Disulfoton

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000298-04-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:	0.0200	Water Solub:	1.6E+1		
Gas Migration:	6	Distrib:	1.4E+3		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-4		
		Non Liq. Karst:	2.0E-1		
		Non Karst:	2.0E-5		

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	10000
				Salt Tox:	10000
Persistence		Persistence		Persistence	
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	0.4000	Lake:	0.4000	Lake:	0.4000
		Bioaccumulation		Bioaccumulation	
		Fresh:	500.0	Fresh:	5000.0
		Salt:	500.0	Salt:	5000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
Cancer Risk:		mg/m ³	Cancer Risk:		mg/L	Non Cancer Risk:	3.1E+0	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m ³	Non Cancer Risk:	1.5E-3	mg/L				CANCER RISK		
									Air:		pCi/m ³
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Garn:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:	1.5E-3	mg/L	Non Cancer Risk:	5.4E-2	mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Endosulfan (I or II)

CAS Number: 000115-29-7

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	6.0E-3	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radiouclid:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	4.1E+2		
Oral ED10 Wgt:				Density:	1.7E+0	g/mL @ 20.00 C	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	1.8E+1	mg/kg	ACGIH	MOBILITY			
Dermal LD50:	7.8E+1	mg/kg	ACGIH	Parameter	Value	Unit	Source
Gas Inhal LC50:		ppm		Vapor Press:	1.0E-5	Torr	CHEMFATE
Dust Inhal LC50:	6.6E+1	mg/L	ACGIH	Henry's Law:	1.1E-5	atm-m3/mol	CHEMFATE
ACUTE				Water Solub:	5.1E-1	mg/L	CHEMFATE
Fresh CMC:		µg/L		Distrib Coef:	4.3E+0	ml/g	SSG_KD
Salt CMC:		µg/L		Geo Mean Sol:		mg/L	
CHRONIC				BIOACCUMULATION			
Fresh CCC:		µg/L		Parameter	Value	Unit	Source
Salt CCC:		µg/L		FOOD CHAIN			
Fresh Ecol LC50:	3.0E-2	µg/L	ECOTOX	Fresh BCF:	1.9E+0		ECOTOX
Salt Ecol LC50:	2.0E-2	µg/L	ECOTOX	Salt BCF:	2.8E+3		ECOTOX
PERSISTENCE				ENVIRONMENTAL			
Parameter	Value	Unit	Source	Fresh BCF:	1.2E+4		ECOTOX
LAKE - Halflives				Salt BCF:	4.2E+3		ECOTOX
Hydrolysis:	1.3E+8	days	CHEMFATE	Log Kow:	3.8E+0		CHEMFATE
Volatility:	1.8E+2	days	THOMAS	Water Solub:	5.1E-1		CHEMFATE
Photolysis:		days		Geo Mean Sol:		mg/L	
Biodeg:	1.4E+1	days	FATERATE	OTHER DATA			
Radio:		days		Melting Point:	1.1E+2	C	
RIVER - Halflives				Boiling Point:	1.1E+2	C	
Hydrolysis:	1.3E+8	days	CHEMFATE	Formula:	C9 H6 Cl6 O3 S		
Volatility:	6.3E+0	days	THOMAS				
Photolysis:		days					
Biodeg:	1.4E+1	days	FATERATE				
Radio:		days					
Log Kow:	3.8E+0		CHEMFATE				

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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Date: 1/28/2004
 Chemical: Endosulfan (I or II)

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000115-29-7

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	100	Toxicity:	100	Toxicity:	100
Gas Mobility:	0.0020	Water Solub:	5.1E-1		
Gas Migration:	11	Distrib:	4.3E+0		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	2.0E-3		
		Non Karst:	2.0E-3		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	100	Toxicity:	100	Fresh Tox:	10000
				Salt Tox:	10000
Persistence		Persistence		Persistence	
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	0.4000	Lake:	0.4000	Lake:	0.4000
		Bioaccumulation		Bioaccumulation	
		Fresh:	5.0	Fresh:	50000.0
		Salt:	5000.0	Salt:	5000.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:	
Cancer Risk:		mg/m ³	Cancer Risk:		mg/L	Non Cancer Risk:	4.7E+2
Non Cancer Risk:		mg/m ³	Non Cancer Risk:	2.2E-1	mg/L		
						CANCER RISK	
						Air:	pCi/m ³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L	FDAAL:		ppm
Cancer Risk:		mg/L	Cancer Risk:		mg/kg
Non Cancer Risk:	2.2E-1	mg/L	Non Cancer Risk:	8.1E+0	mg/kg
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Endosulfan I

CAS Number: 000959-98-8

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	6.0E-3	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	4.1E+2		
Oral ED10 Wgt:				Density:		@	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	7.6E+1	mg/kg	RTECS				
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:	2.2E-1	G, Y	μg/L	WATCRIT			
Salt CMC:	3.4E-2	G, Y	μg/L	WATCRIT			
CHRONIC							
Fresh CCC:	5.6E-2	G, Y	μg/L	WATCRIT			
Salt CCC:	8.7E-3	G, Y	μg/L	WATCRIT			
Fresh Ecol LC50:	1.1E-1	μg/L	ECOTOX				
Salt Ecol LC50:	1.0E+0	μg/L	ECOTOX				
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		Vapor Press:	1.0E-5	Torr	CHEMFATE
Volatility:	1.8E+2	days	THOMAS	Henry's Law:	1.0E-5	atm-m3/mol	CHEMFATE
Photolysis:		days		Water Solub:	5.1E-1	mg/L	CHEMFATE
Biodeg:		days		Distrib Coef:	4.3E+0	ml/g	SSG_KD
Radio:		days		Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	6.6E+0	days	THOMAS				
Photolysis:		days					
Biodeg:		days					
Radio:		days					
Log Kow:	3.8E+0		CHEMFATE				
CLASS INFORMATION				ENVIRONMENTAL			
Class	Parent Substance			Fresh BCF:	1.1E+4		ECOTOX
Endosulfan:	000115-29-7			Salt BCF:			
				Log Kow:	3.8E+0		CHEMFATE
				Water Solub:	5.1E-1		CHEMFATE
				Geo Mean Sol:		mg/L	
OTHER DATA				Melting Point:			
				Boiling Point:			
				Formula:	C9 H6 Cl6 O3 S		

CLASS INFORMATION

Class	Parent Substance
Endosulfan:	000115-29-7

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Endosulfan I

CAS Number: 000959-98-8

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	100
Gas Mobility:	0.0020
Gas Migration:	11

Parameter	Value
Toxicity:	100
Water Solub:	5.1E-1
Distrib:	4.3E+0
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	2.0E-3
Non Karst:	2.0E-3

Parameter	Value
Toxicity:	100

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	100

Parameter	Value
Toxicity:	100

Parameter	Value
Fresh Tox:	10000
Salt Tox:	10000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	500.0
Salt:	500.0

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value
NAAQS/NESHAPS:	<u>Unit</u>
	µg/m ³
Cancer Risk:	<u>Unit</u>
	mg/m ³
Non Cancer Risk:	<u>Unit</u>
	mg/m ³

Parameter	Value
	<u>Unit</u>
MCL/MCLG:	mg/L
Cancer Risk:	<u>Unit</u>
	mg/L
Non Cancer Risk:	<u>Unit</u>
	mg/L

Parameter	Value
	<u>Unit</u>
Cancer Risk:	mg/kg
Non Cancer Risk:	<u>Unit</u>
	mg/kg

Parameter	Value	Unit
	<u>Unit</u>	
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m ³
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
MCL/MCLG:	<u>Unit</u>
	mg/L
Cancer Risk:	<u>Unit</u>
	mg/L
Non Cancer Risk:	<u>Unit</u>
	mg/L

Parameter	Value
	<u>Unit</u>
FDAAL:	ppm
Cancer Risk:	<u>Unit</u>
	mg/kg
Non Cancer Risk:	<u>Unit</u>
	mg/kg

Parameter	Value
	<u>Unit</u>
ACUTE	
Fresh CMC:	2.2E-1 G, Y
Salt CMC:	3.4E-2 G, Y

CHRONIC	
Fresh CCC:	5.6E-2 G, Y
Salt CCC:	8.7E-3 G, Y

	<u>Unit</u>
	µg/L
	µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Endosulfan II

CAS Number: 033213-65-9

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	6.0E-3	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radiонuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	4.1E+2		
Oral ED10 Wgt:				Density:		@	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	2.4E+2	mg/kg	RTECS	MOBILITY			
Dermal LD50:		mg/kg		Parameter	Value	Unit	Source
Gas Inhal LC50:		ppm		Vapor Press:	1.0E-5	Torr	CHEMFATE
Dust Inhal LCS0:		mg/L		Henry's Law:	1.3E-5	atm-m3/mol	CHEMFATE
ACUTE				Water Solub:		mg/L	CHEMFATE
Fresh CMC:	2.2E-1	G, Y		Distrib Coef:	4.3E+0	ml/g	SSG_KD
Salt CMC:	3.4E-2	G, Y		Geo Mean Sol:		mg/L	
CHRONIC				BIOACCUMULATION			
Fresh CCC:	5.6E-2	G, Y		Parameter	Value	Unit	Source
Salt CCC:	8.7E-3	G, Y		FOOD CHAIN			
Fresh Ecol LC50:	1.0E+0	μg/L	ECOTOX	Fresh BCF:			
Salt Ecol LC50:	1.0E+0	μg/L	ECOTOX	Salt BCF:			
PERSISTENCE				ENVIRONMENTAL			
Parameter	Value	Unit	Source	Fresh BCF:	9.9E+3		ECOTOX
LAKE - Halflives				Salt BCF:			
Hydrolysis:		days		Log Kow:	3.8E+0		CHEMFATE
Volatility:	3.1E+2	days	THOMAS	Water Solub:			CHEMFATE
Photolysis:		days		Geo Mean Sol:		mg/L	
Biodeg:		days					
Radio:		days					
RIVER - Halflives				OTHER DATA			
Hydrolysis:		days		Melting Point:			
Volatility:	1.3E+2	days	THOMAS	Boiling Point:			
Photolysis:		days		Formula:	C9 H6 Cl6 O3 S		
Biodeg:		days					
Radio:		days					
Log Kow:	3.8E+0		CHEMFATE				
CLASS INFORMATION							
Class		Parent Substance					
Endosulfan:		000115-29-7					

REFERENCE 2

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Date: 1/28/2004
 Chemical: Endosulfan II

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 033213-65-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	100	Toxicity:	100	Toxicity:	100
Gas Mobility:	0.0020	Water Solub:			
Gas Migration:	11	Distrib:	4.3E+0		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:			
		Non Karst:			

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	100	Toxicity:	100	Fresh Tox:	10000
				Salt Tox:	10000
Persistence		Persistence		Persistence	
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	500.0	Fresh:	5000.0
		Salt:	500.0	Salt:	5000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
Cancer Risk:		mg/m ³	Cancer Risk:		mg/L	Non Cancer Risk:	4.7E+2	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m ³	Non Cancer Risk:	2.2E-1	mg/L				CANCER RISK		
									Air:		pCi/m ³
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:	2.2E-1 G, Y	µg/L
Non Cancer Risk:	2.2E-1	mg/L	Non Cancer Risk:	8.1E+0	mg/kg	Salt CMC:	3.4E-2 G, Y	µg/L
						CHRONIC		
						Fresh CCC:	5.6E-2 G, Y	µg/L
						Salt CCC:	8.7E-3 G, Y	µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Endrin

CAS Number: 000072-20-8

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	3.0E-4	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day) ⁻¹		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day) ⁻¹		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	3.8E+2		
Oral ED10 Wgt:				Density:		g/mL @	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	1.4E+0	mg/kg	ACGIH				
Dermal LD50:	1.5E+1	mg/kg	ACGIH				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:	8.6E-2	K _G	µg/L	WATCRIT			
Salt CMC:	3.7E-2	K _{G, aa}	µg/L	WATCRIT			
CHRONIC							
Fresh CCC:	3.6E-2	K _O	µg/L	WATCRIT			
Salt CCC:	2.3E-3	G _{aa}	µg/L	WATCRIT			
Fresh Ecol LC50:	2.0E-2	µg/L		ECOTOX			
Salt Ecol LC50:	2.5E-2	µg/L		ECOTOX			
PERSISTENCE							
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days					
Volatility:	1.8E+2	days	THOMAS				
Photolysis:		days					
Biodeg:		days					
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	9.4E+0	days	THOMAS				
Photolysis:		days					
Biodeg:		days					
Radio:		days					
Log Kow:	4.6E+0		CHEMFATE				
CLASS INFORMATION							
<u>Class</u>				<u>Parent Substance</u>			

REFERENCE 2

Page 167

Date: 1/28/2004
 Chemical: Endrin

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000072-20-8

ASSIGNED FACTOR VALUES

AIR PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Gas Mobility:	0.0020
Gas Migration:	6

GROUND WATER PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Water Solub:	2.5E-1
Distrib:	2.5E+1
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	2.0E-3
Non Karst:	2.0E-5

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

HUMAN FOOD CHAIN

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	10000
Salt Tox:	10000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	5000.0
Salt:	5000.0

Bioaccumulation	
Fresh:	50000.0
Salt:	5000.0

BENCHMARKS

AIR PATHWAY

<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:	<u>Unit</u>
	µg/m ³
	<u>Parameter</u>
	MCL/MCLG:
	2.0E-3

GROUND WATER PATHWAY

<u>Parameter</u>	<u>Value</u>
Cancer Risk:	<u>Unit</u>
	mg/m ³
	<u>Parameter</u>
	Cancer Risk:
	mg/L

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Non Cancer Risk:	<u>Unit</u>
	mg/m ³
	<u>Parameter</u>
	Cancer Risk:
	mg/L

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:	<u>Unit</u>	pCi/L
	µg/m ³	
	<u>Parameter</u>	
	MCL/MCLG:	
	2.0E-3	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Cancer Risk:	<u>Unit</u>	pCi/kg
	mg/m ³	
	<u>Parameter</u>	
	UMTRCA:	
	2.3E+1	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Non Cancer Risk:	<u>Unit</u>	
	mg/m ³	
	<u>Parameter</u>	
	NON CANCER RISK	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Air:		pCi/m ³
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	2.0E-3
<u>Parameter</u>	<u>Value</u>
Cancer Risk:	<u>Unit</u>
	mg/L
	<u>Parameter</u>
	Non Cancer Risk:
	1.1E-2

HUMAN FOOD CHAIN

<u>Parameter</u>	<u>Value</u>
FDAAL:	<u>Unit</u>
	ppm
	<u>Parameter</u>
	Cancer Risk:
	mg/kg

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:	8.6E-2	K
Salt CMC:	3.7E-2	G
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
CHRONIC		
Fresh CCC:	3.6E-2	K, O
Salt CCC:	2.3E-3	G, aa
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
		µg/L
		µg/L

REFERENCE 2

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Date: 1/28/2004
Chemical: Endrin aldehyde

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 007421-93-4

CLASS INFORMATION

Class

Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Endrin aldehyde

CAS Number: 007421-93-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	0
Gas Mobility:	0.0020
Gas Migration:	6

Parameter	Value
Toxicity:	0
Water Solub:	2.4E-2
Distrib:	8.0E+3
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	2.0E-3
Non Karst:	2.0E-7

Parameter	Value
Toxicity:	0

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	0

Parameter	Value
Toxicity:	0

Parameter	Value
Fresh Tox:	0
Salt Tox:	0

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	5000.0
Salt:	5000.0

Bioaccumulation	
Fresh:	5000.0
Salt:	5000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter	Value	Unit
NAAQS/NESHAPS:		$\mu\text{g}/\text{m}^3$
Cancer Risk:		mg/m^3
Non Cancer Risk:		mg/m^3

Parameter	Value	Unit
MCL/MCLG:		mg/L
Cancer Risk:		mg/L
Non Cancer Risk:		mg/L

Parameter	Value	Unit
Cancer Risk:		mg/kg
Non Cancer Risk:		mg/kg

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m^3
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit
MCL/MCLG:		mg/L
Cancer Risk:		mg/L
Non Cancer Risk:		mg/L

Parameter	Value	Unit
FDAAL:		ppm
Cancer Risk:		mg/kg
Non Cancer Risk:		mg/kg

Parameter	Value	Unit
ACUTE		
Fresh CMC:		$\mu\text{g}/\text{L}$
Salt CMC:		$\mu\text{g}/\text{L}$

CHRONIC		
Fresh CCC:		$\mu\text{g}/\text{L}$
Salt CCC:		$\mu\text{g}/\text{L}$

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Ethyl benzene

CAS Number: 000100-41-4

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	1.0E-1	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:	2.9E-1	mg/kg/day	IRIS	Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	No		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.1E+2		
Oral ED10 Wgt:				Density:	8.7E-1	g/mL @ 20.00 C	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	3.5E+3	mg/kg	ACGIH				
Dermal LD50:	1.5E+4	mg/kg	RTECS				
Gas Inhal LC50:	4.0E+3	ppm	RTECS				
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	1.3E+3	µg/L	ECOTOX				
Salt Ecol LC50:	2.1E+2	µg/L	ECOTOX				
PERSISTENCE							
Parameter	Value	Unit	Source				
LAKE - Halflives							
Hydrolysis:		days					
Volatility:	9.1E+1	days	THOMAS				
Photolysis:	2.1E-1	days	CHEMFATE				
Biodeg:	2.0E+1	days	CHEMFATE				
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	9.8E-1	days	THOMAS				
Photolysis:	2.1E-1	days	CHEMFATE				
Biodeg:	2.0E+1	days	CHEMFATE				
Radio:		days					
Log Kow:	3.1E+0		CHEMFATE				

MOBILITY			
Parameter	Value	Unit	Source
Vapor Press:	9.6E+0	Torr	CHEMFATE
Henry's Law:	7.9E-3	atm-m ³ /mol	CHEMFATE
Water Solub:	1.7E+2	mg/L	CHEMFATE
Distrib Coef:	7.3E-1	ml/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	3.1E+0		CHEMFATE
Water Solub:	1.7E+2		CHEMFATE
Geo Mean Sol:		mg/L	

OTHER DATA			
Parameter	Value	Unit	Source
Melting Point:	-9.5E+1	C	
Boiling Point:	1.4E+2	C	
Formula:	C8 H10		

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Ethyl benzene

CAS Number: 000100-41-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	10
Gas Mobility:	1.0000
Gas Migration:	17

Parameter	Value
Toxicity:	10
Water Solub:	1.7E+2
Distrib:	7.3E-1
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E+0

Parameter	Value
Toxicity:	10

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	10

Parameter	Value
Toxicity:	10

Parameter	Value
Fresh Tox:	100
Salt Tox:	1000

Persistence	
River:	0.0007
Lake:	0.0700

Persistence	
River:	0.0007
Lake:	0.0700

Persistence	
River:	0.0007
Lake:	0.0700

Bioaccumulation	
Fresh:	50.0
Salt:	50.0

Bioaccumulation	
Fresh:	50.0
Salt:	50.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value
NAAQS/NESHAPS:	
Cancer Risk:	
Non Cancer Risk:	1.0E+0

Parameter	Value
Unit	
µg/m ³	
MCL/MCLG:	7.0E-1
mg/m ³	
Cancer Risk:	
Non Cancer Risk:	3.7E+0

Parameter	Value
Unit	
mg/L	
Cancer Risk:	
Non Cancer Risk:	7.8E+3

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m ³
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
MCL/MCLG:	7.0E-1
Cancer Risk:	
Non Cancer Risk:	3.7E+0

Parameter	Value
Unit	
mg/L	
FDAAL:	
Cancer Risk:	
Non Cancer Risk:	1.4E+2

Parameter	Value
Unit	
ACUTE	
Fresh CMC:	
Salt CMC:	

CHRONIC	
Fresh CCC:	
Salt CCC:	

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Ethyl chloride

CAS Number: 000075-00-3

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:	2.9E+0	mg/kg/day	IRIS	Organic:	Yes		
Oral Slope:		(mg/kg/day) ⁻¹		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	No		
Inhal Slope:		(mg/kg/day) ⁻¹		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	6.5E+1		
Oral ED10 Wgt:				Density:	8.9E-1	g/mL @ 25.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:	6.1E+4	ppm	ACGIH				
Dust Inhal LC50:	1.2E+5	mg/L	RTECS				
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:		µg/L					
Salt Ecol LC50:		µg/L					
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:	3.8E+1	days	FATERATE	Vapor Press:	1.0E+3	Torr	CHEMFATE
Volatility:	1.8E-1	days	THOMAS	Henry's Law:	8.8E-3	atm-m ³ /mol	CHEMFATE
Photolysis:		days		Water Solub:	5.7E+3	mg/L	CHEMFATE
Biodeg:	2.8E+1	days	FATERATE	Distrib Coef:	3.2E-2	ml/g	SSG_KD
Radio:		days		Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:	3.8E+1	days	FATERATE				
Volatility:	1.8E-1	days	THOMAS				
Photolysis:		days					
Biodeg:	2.8E+1	days	FATERATE				
Radio:		days					
Log Kow:	1.4E+0		CHEMFATE				
CLASS INFORMATION				ENVIRONMENTAL			
Class	Parent Substance			FRESH BCF:			
				SALT BCF:			
OTHER DATA				LOG KOW:	1.4E+0		CHEMFATE
				WATER SOLUB:	5.7E+3	mg/L	CHEMFATE
				geo mean sol:			
				MELTING POINT:	-1.4E+2	C	
				BOILING POINT:	1.2E+1	C	
				FORMULA:	C ₂ H ₅ Cl		

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Ethyl chloride

CAS Number: 000075-00-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	1
Gas Mobility:	1.0000
Gas Migration:	17

Parameter	Value
Toxicity:	1
Water Solub:	5.7E+3
Distrib:	3.2E-2
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E+0

Parameter	Value
Toxicity:	1

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	1

Parameter	Value
Toxicity:	1

Parameter	Value
Fresh Tox:	0
Salt Tox:	0

Persistence	
River:	0.0007
Lake:	0.0700

Persistence	
River:	0.0007
Lake:	0.0700

Persistence	
River:	0.0007
Lake:	0.0700

Bioaccumulation

Fresh:	5.0
Salt:	5.0

Bioaccumulation

Fresh:	5.0
Salt:	5.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter	Value
NAAQS/NESHAPS:	$\mu\text{g}/\text{m}^3$
Cancer Risk:	mg/m ³
Non Cancer Risk:	mg/m ³

Parameter	Value
MCL/MCLG:	mg/L
Cancer Risk:	mg/L
Non Cancer Risk:	mg/L

Parameter	Value
Cancer Risk:	mg/kg
Non Cancer Risk:	mg/kg

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m ³
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
MCL/MCLG:	mg/L
Cancer Risk:	mg/L
Non Cancer Risk:	mg/L

Parameter	Value
FDAAL:	ppm
Cancer Risk:	mg/kg
Non Cancer Risk:	mg/kg

Parameter	Value
ACUTE	
Fresh CMC:	
Salt CMC:	

CHRONIC	
Fresh CCC:	$\mu\text{g}/\text{L}$
Salt CCC:	$\mu\text{g}/\text{L}$

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Ethylene glycol monobutyl ether (EBGE)

CAS Number: 000111-76-2

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	5.0E-1	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:	5.7E-2	mg/kg/day	HEAST	Organic:	Yes		
Oral Slope:		(mg/kg/day) ⁻¹		Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day) ⁻¹		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.2E+2		
Oral ED10 Wgt:				Density:	9.0E-1	g/mL @ 20.00 C	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	3.2E+2	mg/kg	ACGIH				
Dermal LD50:	4.0E+2	mg/kg	ACGIH				
Gas Inhal LC50:	4.9E+2	ppm	ACGIH				
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	1.4E+6	µg/L	ECOTOX				
Salt Ecol LC50:	5.5E+5	µg/L	ECOTOX				
PERSISTENCE							
Parameter	Value	Unit	Source				
LAKE - Halflives							
Hydrolysis:		days					
Volatility:	1.1E+2	days	THOMAS				
Photolysis:		days					
Biodeg:	2.8E+1	days	FATERATE				
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	1.8E+1	days	THOMAS				
Photolysis:		days					
Biodeg:	2.8E+1	days	FATERATE				
Radio:		days					
Log Kow:	8.3E-1		CHEMFATE				

CLASS INFORMATION			
Class	Parent Substance		

MOBILITY			
Parameter	Value	Unit	Source
Vapor Press:	8.7E-1	Torr	CHEMFATE
Henry's Law:	2.1E-7	atm-m ³ /mol	CHEMFATE
Water Solub:	1.0E+6	mg/L	CHEMFATE
Distrib Coef:	1.0E+0	ml/g	DITOR_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:	8.3E-1		CHEMFATE
Water Solub:	1.0E+6		CHEMFATE
Geo Mean Sol:		mg/L	

OTHER DATA			
Melting Point:	-7.5E+1		C
Boiling Point:	1.7E+2		C
Formula:	C ₆ H ₁₄ O ₂		

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Ethylene glycol monobutyl ether (EBGE)

CAS Number: 000111-76-2

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter Value

Toxicity: 10

Gas Mobility:

Gas Migration:

Parameter Value

Toxicity: 10

Water Solub: 1.0E+6

Distrib: 1.0E+0

Geo Mean Sol:

Mobility:

Liquid Karst: 1.0E+0

Non Karst: 1.0E+0

Non Liq. Karst:

Non Karst:

Parameter Value

Toxicity: 10

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value

Toxicity: 10

Parameter Value

Toxicity: 10

Parameter Value

Fresh Tox: 1

Salt Tox: 1

Persistence

River: 1.0000

Persistence

River: 1.0000

Persistence

River: 1.0000

Lake: 1.0000

Lake: 1.0000

Lake: 1.0000

Bioaccumulation

Fresh: 5.0

Salt: 5.0

Bioaccumulation

Fresh: 5.0

Salt: 5.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter Value

NAAQS/NESHAPS:

Unit

µg/m³

Parameter Value

MCL/MCLG:

Unit

mg/L

Parameter Value

Cancer Risk:

Unit

mg/kg

Parameter Value

MCL:

Parameter Value

UMTRCA:

Unit

pCi/L

Cancer Risk:

Non Cancer Risk: 2.1E-1

Unit

mg/m³

Parameter Value

Cancer Risk:

Unit

mg/L

Parameter Value

Non Cancer Risk: 3.9E+4

Unit

mg/kg

Parameter Value

UMTRCA:

Unit

pCi/kg

Non Cancer Risk:

Non Cancer Risk: 1.8E+1

CANCER RISK

Air:

Unit

pCi/m³

DW:

Unit

pCi/L

FC:

Unit

pCi/kg

Soil Ing:

Unit

pCi/kg

Soil Garm:

Unit

pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value

MCL/MCLG:

Unit

mg/L

Parameter Value

FDAAL:

Unit

ppm

Parameter Value

ACUTE Fresh CMC:

Unit

µg/L

Cancer Risk:

Non Cancer Risk: 1.8E+1

Unit

mg/L

Parameter Value

Cancer Risk:

Unit

mg/kg

Parameter Value

Salt CMC:

Unit

µg/L

CHRONIC

Fresh CCC:

Unit

µg/L

Salt CCC:

Unit

µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Fluorene

CAS Number: 000086-73-7

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	4.0E-2	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radiонuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.7E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	1.2E+0	g/mL @ 0.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L		MOBILITY			
Salt CMC:		µg/L		Parameter	Value	Unit	Source
CHRONIC				Vapor Press:	6.3E-4	Torr	CHEMFATE
Fresh CCC:		µg/L		Henry's Law:	6.4E-5	atm-m3/mol	CHEMFATE
Salt CCC:		µg/L		Water Solub:	2.0E+0	mg/L	CHEMFATE
Fresh Ecol LC50:	3.7E+2	µg/L	ECOTOX	Distrib Coef:	2.1E+3	ml/g	DITOR_KD
Salt Ecol LC50:	7.0E+2	µg/L	ECOTOX	Geo Mean Sol:		mg/L	
PERSISTENCE							
Parameter	Value	Unit	Source	BIOACCUMULATION			
LAKE - Halflives							
Hydrolysis:		days		Parameter	Value	Unit	Source
Volatility:	1.1E+2	days	THOMAS	FOOD CHAIN			
Photolysis:		days		Fresh BCF:	7.3E+2		ECOTOX
Biodeg:	5.1E+3	days	CHEMFATE	Salt BCF:			
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days		ENVIRONMENTAL			
Volatility:	1.7E+0	days	THOMAS	Fresh BCF:	2.2E+3		ECOTOX
Photolysis:		days		Salt BCF:			
Biodeg:	5.1E+3	days	CHEMFATE	Log Kow:	4.2E+0		CHEMFATE
Radio:		days		Water Solub:	2.0E+0		CHEMFATE
Log Kow:	4.2E+0			Geo Mean Sol:		mg/L	
CLASS INFORMATION							
<u>Class</u>				<u>Parent Substance</u>			

REFERENCE 2

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Date: 1/28/2004
 Chemical: Fluorene

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000086-73-7

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Gas Mobility:	0.0200
Gas Migration:	11

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Water Solub:	2.0E+0
Distrib:	2.1E+3
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	2.0E-1
Non Karst:	2.0E-5

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	1000
Salt Tox:	1000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation

Fresh:	500.0
Salt:	500.0

Bioaccumulation	
Fresh:	5000.0
Salt:	5000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:	<u>Unit</u>
Cancer Risk:	µg/m ³
Non Cancer Risk:	mg/m ³

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	<u>Unit</u>
Cancer Risk:	mg/L
Non Cancer Risk:	mg/L

<u>Parameter</u>	<u>Value</u>
Cancer Risk:	<u>Unit</u>
Non Cancer Risk:	mg/kg

<u>Parameter</u>	<u>Value</u>
MCL:	<u>Unit</u>
UMTRCA:	pCi/L
CANCER RISK	pCi/kg
Air:	pCi/m ³
DW:	pCi/L
FC:	pCi/kg
Soil Ing:	pCi/kg
Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	<u>Unit</u>
Cancer Risk:	mg/L
Non Cancer Risk:	1.5E+0

<u>Parameter</u>	<u>Value</u>
FDAAL:	<u>Unit</u>
Cancer Risk:	ppm
Non Cancer Risk:	mg/kg

<u>Parameter</u>	<u>Value</u>
ACUTE	
Fresh CMC:	<u>Unit</u>
Salt CMC:	µg/L

CHRONIC	
Fresh CCC:	<u>Unit</u>
Salt CCC:	µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
Chemical: Fluorine

CAS Number: 007782-41-4

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	6.0E-2	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	No		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	3.8E+1		
Oral ED10 Wgt:				Density:	1.6E+0	g/mL @	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:	1.5E+2	ppm	ACGIH				
Dust Inhal LC50:	9.3E+2	mg/L	RTECS				
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:		µg/L					
Salt Ecol LC50:		µg/L					
PERSISTENCE							
Parameter	Value	Unit	Source	ENVIRONMENTAL			
LAKE - Halflives							
Hydrolysis:		days		Fresh BCF:			
Volatility:		days		Salt BCF:			
Photolysis:		days					
Biodeg:		days					
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days		Log Kow:	2.2E-1		PHYSPROP
Volatility:		days		Water Solub:	1.7E+0		PHYSPROP
Photolysis:		days		Geo Mean Sol:		mg/L	
Biodeg:		days					
Radio:		days					
OTHER DATA							
Log Kow:	2.2E-1			Melting Point:	-2.2E+2	C	
				Boiling Point:	-1.9E+2	C	
				Formula:	F2		

CLASS INFORMATION

Class

Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Fluorine

CAS Number: 007782-41-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10
Gas Mobility:	1.0000
Gas Migration:	17

<u>Parameter</u>	<u>Value</u>
Toxicity:	10
Water Solub:	1.7E+0
Distrib:	1.5E+2
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	2.0E-1
Non Karst:	2.0E-3

<u>Parameter</u>	<u>Value</u>
Toxicity:	10

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	10

<u>Parameter</u>	<u>Value</u>
Toxicity:	10

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	0
Salt Tox:	0

Persistence	
River:	0.4000
Lake:	0.0700

Persistence	
River:	0.4000
Lake:	0.0700

Persistence	
River:	0.4000
Lake:	0.0700

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:	Unit
	µg/m ³
Cancer Risk:	Parameter
	MCL/MCLG:
Non Cancer Risk:	mg/m ³
	mg/L
	Non Cancer Risk: 2.2E+0

<u>Parameter</u>	<u>Value</u>
	Unit
	mg/L
	mg/L
	mg/L

<u>Parameter</u>	<u>Value</u>
	Unit
	mg/kg
	mg/kg
	4.7E+3

<u>Parameter</u>	<u>Value</u>
	Unit
	pCi/L
	pCi/kg
	CANCER RISK
Air:	pCi/m ³
DW:	pCi/L
FC:	pCi/kg
Soil Ing:	pCi/kg
Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	Unit
	mg/L
Cancer Risk:	mg/L
Non Cancer Risk: 2.2E+0	mg/L

<u>Parameter</u>	<u>Value</u>
	Unit
	ppm
	mg/kg
	mg/kg

<u>Parameter</u>	<u>Value</u>
	Unit
ACUTE	
Fresh CMC:	µg/L
Salt CMC:	µg/L

CHRONIC	
Fresh CCC:	µg/L
Salt CCC:	µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Heptachlor

CAS Number: 000076-44-8

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	5.0E-4	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	4.5E+0	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:	4.5E+0	(mg/kg/day)^-1	IRIS	Radiouclide:	No		
Inhal Wt-of-Evid:	B2			Rad. Element:	No		
Oral ED10:	8.5E-3	mg/kg/day	EPA_ED10	Molecular Weight:	3.7E+2		
Oral ED10 Wgt:	B2			Density:	1.6E+0	g/mL @ 9.00	C
Inhal ED10:	8.5E-3	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	B2						
Oral LD50:	4.0E+1	mg/kg	ACGIH				
Dermal LD50:	1.2E+2	mg/kg	ACGIH				
Gas Inhal LC50:	9.8E+0	ppm	ACGIH				
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:	5.2E-1	G	μg/L	WATCRIT			
Salt CMC:	5.3E-2	G	μg/L	WATCRIT			
CHRONIC							
Fresh CCC:	3.8E-3	G, aa	μg/L	WATCRIT			
Salt CCC:	3.6E-3	G, aa	μg/L	WATCRIT			
Fresh Ecol LC50:	2.0E-1	μg/L	ECOTOX				
Salt Ecol LC50:	2.0E-2	μg/L	ECOTOX				
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:	5.4E+0	days	FATERATE	Vapor Press:	4.0E-4	Torr	CHEMFATE
Volatility:	1.7E+2	days	THOMAS	Henry's Law:	1.5E+0	atm-m3/mol	CHEMFATE
Photolysis:		days		Water Solub:	1.8E-1	mg/L	CHEMFATE
Biodeg:	6.5E+1	days	FATERATE	Distrib Coef:	2.1E+5	ml/g	DITOR_KD
Radio:		days		Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:	5.4E+0	days	FATERATE				
Volatility:	2.0E+0	days	THOMAS				
Photolysis:		days					
Biodeg:	6.5E+1	days	FATERATE				
Radio:		days					
Log Kow:	4.3E+0		CHEMFATE				
CLASS INFORMATION							
Class	Parent Substance						

REFERENCE 2

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Date: 1/28/2004
 Chemical: Heptachlor

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000076-44-8

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000
Gas Mobility:	0.0200
Gas Migration:	11

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000
Water Solub:	1.8E-1
Distrib:	2.1E+5
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	2.0E-3
Non Karst:	2.0E-7

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	10000
Salt Tox:	10000

Persistence	
River:	0.4000
Lake:	0.4000

Persistence	
River:	0.4000
Lake:	0.4000

Persistence	
River:	0.4000
Lake:	0.4000

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		<u>µg/m³</u>	MCL/MCLG:	4.0E-4	<u>mg/L</u>
Cancer Risk:	1.9E-6	<u>mg/m³</u>	Cancer Risk:	1.9E-5	<u>mg/L</u>
Non Cancer Risk:		<u>mg/m³</u>	Non Cancer Risk:	1.8E-2	<u>mg/L</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
			Cancer Risk:	1.4E-1	<u>mg/kg</u>
			Non Cancer Risk:	3.9E+1	<u>mg/kg</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL:		<u>pCi/L</u>
UMTRCA:		<u>pCi/kg</u>
CANCER RISK		
Air:		<u>pCi/m³</u>
DW:		<u>pCi/L</u>
FC:		<u>pCi/kg</u>
Soil Ing:		<u>pCi/kg</u>
Soil Gam:		<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:	4.0E-4	<u>mg/L</u>
Cancer Risk:	1.9E-5	<u>mg/L</u>
Non Cancer Risk:	1.8E-2	<u>mg/L</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
FDAAL:	3.0E-1	<u>ppm</u>
Cancer Risk:	7.0E-4	<u>mg/kg</u>
Non Cancer Risk:	6.8E-1	<u>mg/kg</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:	5.2E-1 ^G	
Salt CMC:	5.3E-2 ^G	
CHRONIC		
Fresh CCC:	3.8E-3 ^{G, aa}	
Salt CCC:	3.6E-3 ^{G, aa}	

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Heptachlor epoxide, alpha, beta, gamma

CAS Number: 001024-57-3

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value		
Oral RfD:	1.3E-5	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	9.1E+0	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:	9.1E+0	(mg/kg/day)^-1	IRIS	Radionuclide:	No		
Inhal Wt-of-Evid:	B2			Rad. Element:	No		
Oral ED10:	3.4E-3	mg/kg/day	EPA_ED10	Molecular Weight:	3.9E+2		
Oral ED10 Wgt:	B2			Density:		g/mL @	C
Inhal ED10:	3.4E-3	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	B2						
Oral LD50:	6.2E+1	mg/kg	ACGIH				
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE				MOBILITY			
Fresh CMC:	5.2E-1	G, v	μg/L	Parameter	Value	Unit	Source
Salt CMC:	5.3E-2	G, v	μg/L	Vapor Press:	1.9E-5	Torr	CHEMFATE
				Henry's Law:	9.5E-6	atm-m3/mol	CHEMFATE
				Water Solub:	2.0E-1	mg/L	CHEMFATE
				Distrib Coef:	1.3E+4	ml/g	DITOR_KD
				Geo Mean Sol:		mg/L	
CHRONIC				BIOACCUMULATION			
Fresh CCC:	3.8E-3	G, V, aa	μg/L	Parameter	Value	Unit	Source
Salt CCC:	3.6E-3	G, V, aa	μg/L	FOOD CHAIN			
				Fresh BCF:	2.3E+3		ECOTOX
				Salt BCF:	1.7E+3		ECOTOX
Fresh Ecol LC50:	3.9E+0	μg/L	ECOTOX	ENVIRONMENTAL			
Salt Ecol LC50:	1.0E-3	μg/L	ECOTOX	Fresh BCF:	1.4E+4		ECOTOX
PERSISTENCE				Salt BCF:	1.7E+3		ECOTOX
Parameter	Value	Unit	Source	Log Kow:	5.4E+0		CHEMFATE
LAKE - Halflives				Water Solub:	2.0E-1		CHEMFATE
Hydrolysis:		days		Geo Mean Sol:		mg/L	
Volatility:	1.8E+2	days	THOMAS	OTHER DATA			
Photolysis:		days		Melting Point:	1.6E+2	C	
Biodeg:	5.5E+2	days	FATERATE	Boiling Point:		C	
Radio:		days		Formula:	C10 H5 Cl7 O		
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	7.0E+0	days	THOMAS				
Photolysis:		days					
Biodeg:	5.5E+2	days	FATERATE				
Radio:		days					
Log Kow:	5.4E+0		CHEMFATE				

CLASS INFORMATION

<u>Class</u>	<u>Parent Substance</u>
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REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Heptachlor epoxide, alpha, beta, gamma

CAS Number: 001024-57-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:	0.0200	Water Solub:	2.0E-1		
Gas Migration:	6	Distrib:	1.3E+4		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-4		
		Non Liq. Karst:	2.0E-3		
		Non Karst:	2.0E-7		

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	10000
Persistence		Persistence		Salt Tox:	10000
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	5000.0	Fresh:	50000.0
		Salt:	5000.0	Salt:	5000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		<u>µg/m³</u>	MCL/MCLG:	2.0E-4	<u>mg/L</u>	Cancer Risk:	7.0E-2	<u>mg/kg</u>	MCL:		<u>pCi/L</u>
Cancer Risk:	9.4E-7	<u>mg/m³</u>	Cancer Risk:	9.4E-6	<u>mg/L</u>	Non Cancer Risk:	1.0E+0	<u>mg/kg</u>	UMTRCA:		<u>pCi/kg</u>
Non Cancer Risk:		<u>mg/m³</u>	Non Cancer Risk:	4.7E-4	<u>mg/L</u>				CANCER RISK		
									Air:		<u>pCi/m³</u>
									DW:		<u>pCi/L</u>
									FC:		<u>pCi/kg</u>
									Soil Ing:		<u>pCi/kg</u>
									Soil Garm:		<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:	2.0E-4	<u>mg/L</u>	FDAAL:	3.0E-1	<u>ppm</u>	ACUTE		
Cancer Risk:	9.4E-6	<u>mg/L</u>	Cancer Risk:	3.5E-4	<u>mg/kg</u>	Fresh CMC:	5.2E-1 ^{G, V}	<u>µg/L</u>
Non Cancer Risk:	4.7E-4	<u>mg/L</u>	Non Cancer Risk:	1.8E-2	<u>mg/kg</u>	Salt CMC:	5.3E-2 ^{G, V}	<u>µg/L</u>
						CHRONIC		
						Fresh CCC:	3.8E-3 ^{G, V, aa}	<u>µg/L</u>
						Salt CCC:	3.6E-3 ^{G, V, aa}	<u>µg/L</u>

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Heptachlorodibenzo-p-dioxin

CAS Number: 037871-00-4

TOXICITY		PHYSICAL CHARACTERISTICS	
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>
Oral RfD:		mg/kg/day		Metal Contain:	No
Inhal RfD:		mg/kg/day		Organic:	Yes
Oral Slope:		(mg/kg/day)^-1		Gas:	No
Oral Wt-of-Evid:				Particulate:	Yes
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No
Inhal Wt-of-Evid:				Rad. Element:	No
Oral ED10:		mg/kg/day		Molecular Weight:	4.3E+2
Oral ED10 Wgt:		mg/kg/day		Density:	@
Inhal ED10:		mg/kg/day			
Inhal ED10 Wgt:		mg/kg/day			
Oral LD50:		mg/kg			
Dermal LD50:		mg/kg			
Gas Inhal LC50:		ppm			
Dust Inhal LC50:		mg/L			
ACUTE					
Fresh CMC:		µg/L			
Salt CMC:		µg/L			
CHRONIC					
Fresh CCC:		µg/L			
Salt CCC:		µg/L			
Fresh Ecol LC50:		µg/L			
Salt Ecol LC50:		µg/L			

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives				ENVIRONMENTAL			
Hydrolysis:		days		Fresh BCF:			
Volatility:	1.8E+2	days	THOMAS	Salt BCF:			
Photolysis:		days					
Biodeg:		days					
Radio:		days		Log Kow:	7.8E+0		CHEMFATE
RIVER - Halflives				Water Solub:	1.9E-3		CHEMFATE
Hydrolysis:		days		Geo Mean Sol:		mg/L	
Volatility:	4.3E+0	days	THOMAS				
Photolysis:		days					
Biodeg:		days					
Radio:		days					
Log Kow:	7.8E+0		CHEMFATE	Melting Point:	2.6E+2	C	
				Boiling Point:			
				Formula:	C12HCl7O2		

CLASS INFORMATION		
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Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Heptachlorodibenzo-p-dioxin

CAS Number: 037871-00-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	0
Gas Mobility:	
Gas Migration:	

GROUND WATER PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	0
Water Solub:	1.9E-3
Distrib:	6.3E+6
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	2.0E-5
Non Karst:	2.0E-9

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	0

SURFACE WATER PATHWAY

DRINKING WATER

<u>Parameter</u>	<u>Value</u>
Toxicity:	0

HUMAN FOOD CHAIN

<u>Parameter</u>	<u>Value</u>
Toxicity:	0

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	0
Salt Tox:	0

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

BENCHMARKS

AIR PATHWAY

<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:	<u>Unit</u>
	µg/m ³
Cancer Risk:	<u>MCL/MCLG:</u>
	mg/m ³
Non Cancer Risk:	<u>mg/m³</u>
	Non Cancer Risk:

GROUND WATER PATHWAY

<u>Parameter</u>	<u>Value</u>
	<u>Unit</u>
	MCL/MCLG:
	mg/L
	Cancer Risk:
	mg/L
	Non Cancer Risk:
	mg/L

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
	<u>Unit</u>
	mg/kg
	MCL:
	mg/kg
	UMTRCA:
	CANCER RISK

Air:	<u>Unit</u>
DW:	pCi/L
FC:	pCi/kg
Soil Ing:	pCi/kg
Soil Gam:	pCi/kg

pCi/m³
pCi/L
pCi/kg
pCi/kg
pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	<u>Unit</u>
	mg/L
Cancer Risk:	<u>mg/L</u>
Non Cancer Risk:	<u>mg/L</u>

HUMAN FOOD CHAIN

<u>Parameter</u>	<u>Value</u>
	<u>Unit</u>
	FDAAL:
	ppm
	Cancer Risk:
	mg/kg
	Non Cancer Risk:
	mg/kg

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
	<u>Unit</u>
ACUTE	
Fresh CMC:	<u>µg/L</u>
Salt CMC:	<u>µg/L</u>
CHRONIC	
Fresh CCC:	<u>µg/L</u>
Salt CCC:	<u>µg/L</u>

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-

CAS Number: 035822-46-9

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	1.5E+2	(mg/kg/day)^-1	LIVECHEM	Gas:	No		
Oral Wt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:	1.5E+2	(mg/kg/day)^-1	LIVECHEM	Radionuclide:	No		
Inhal Wt-of-Evid:	B2			Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	4.3E+2		
Oral ED10 Wgt:				Density:		@	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	6.3E+0	mg/kg	RTECS				
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:		µg/L					
Salt Ecol LC50:		µg/L					
PERSISTENCE							
Parameter	Value	Unit	Source	ENVIRONMENTAL			
LAKE - Halflives							
Hydrolysis:		days		Fresh BCF:	2.8E+4		ECOTOX
Volatility:	1.8E+2	days	THOMAS	Salt BCF:			
Photolysis:		days					
Biodeg:		days					
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days		Log Kow:	8.2E+0		PHYSPROP
Volatility:	2.2E+0	days	THOMAS	Water Solub:	2.4E-6		PHYSPROP
Photolysis:		days		Geo Mean Sol:		mg/L	
Biodeg:		days					
Radio:		days					
Log Kow:	8.2E+0		PHYSPROP				
CLASS INFORMATION							
Class	Parent Substance						

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-

CAS Number: 035822-46-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Gas Mobility:	
Gas Migration:	

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Water Solub:	2.4E-6
Distrib:	1.7E+7
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	2.0E-5
Non Karst:	2.0E-9

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	0
Salt Tox:	0

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		
Cancer Risk:	5.7E-8	µg/m ³
Non Cancer Risk:		mg/m ³

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		MCL/MCLG:
Cancer Risk:		mg/m ³
Non Cancer Risk:		mg/m ³

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Cancer Risk:	5.7E-7	mg/L
Non Cancer Risk:		mg/L

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Cancer Risk:	4.3E-3	mg/kg
Non Cancer Risk:		mg/kg

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m ³
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L
Cancer Risk:	5.7E-7	mg/L

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
FDAAL:		ppm
Cancer Risk:	2.1E-5	mg/kg

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Non Cancer Risk:		mg/kg

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:		µg/L

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
CHRONIC		
Fresh CCC:		µg/L

Salt CMC:

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Heptachlorodibenzofuran 1,2,3,4,6,7,8-

CAS Number: 067562-39-4

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	1.5E+2	(mg/kg/day)^-1	LIVECHEM
Oral Wt-of-Evid:	B2		
Inhal Slope:	1.5E+2	(mg/kg/day)^-1	LIVECHEM
Inhal Wt-of-Evid:	B2		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L

Fresh Ecol LC50:	μg/L
Salt Ecol LC50:	μg/L

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	1.9E+2	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:	9.8E+0	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	7.9E+0		PHYSPROP

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.0E-8	Torr	PHYSPROP
Henry's Law:	6.3E-6	atm-m ³ /mol	PHYSPROP
Water Solub:	1.3E-6	mg/L	PHYSPROP
Distrib Coef:	9.3E+6	ml/g	DITOR_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:			
Salt BCF:			
Log Kow:	7.9E+0		PHYSPROP

Water Solub:	1.3E-6	
Geo Mean Sol:		mg/L

OTHER DATA

Melting Point:		C
Boiling Point:		C
Formula:	C ₁₂ H Cl ₇ O	

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Heptachlorodibenzofuran 1,2,3,4,6,7,8-

CAS Number: 067562-39-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:	0.0002	Water Solub:	1.3E-6		
Gas Migration:	6	Distrib:	9.3E+6		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-4		
		Non Liq. Karst:	2.0E-5		
		Non Karst:	2.0E-9		

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	0
Persistence		Persistence		Salt Tox:	0
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	50000.0	Fresh:	50000.0
		Salt:	50000.0	Salt:	50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:	4.3E-3	pCi/L
Cancer Risk:	5.7E-8	mg/m ³	Cancer Risk:	5.7E-7	mg/L	Non Cancer Risk:		pCi/kg
Non Cancer Risk:		mg/m ³	Non Cancer Risk:		mg/L			CANCER RISK
								Air:
								DW:
								FC:
								Soil Ing:
								Soil Gam:

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:	5.7E-7	mg/L	Cancer Risk:	2.1E-5	mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Heptachlorodibenzofuran 1,2,3,4,7,8,9-

CAS Number: 055673-89-7

TOXICITY				PHYSICAL CHARACTERISTICS	
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	1.5E+2	(mg/kg/day)^-1	LIVECHEM
Oral Wt-of-Evid:	B2		
Inhal Slope:	1.5E+2	(mg/kg/day)^-1	LIVECHEM
Inhal Wt-of-Evid:	B2		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	

ACUTE	
Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC	
Fresh CCC:	μg/L
Salt CCC:	μg/L

Fresh Ecol LC50:	μg/L
Salt Ecol LC50:	μg/L

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	

Log Kow:

<u>Parameter</u>	<u>Value</u>
Metal Contain:	No
Organic:	Yes
Gas:	No
Particulate:	Yes
Radionuclide:	No
Rad. Element:	No
Molecular Weight:	4.1E+2
Density:	g/mL @ C

MOBILITY			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m ³ /mol	
Water Solub:		mg/L	
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			

OTHER DATA			
Melting Point:		C	
Boiling Point:		C	
Formula:	C ₁₂ H Cl ₇ O		

CLASS INFORMATION	
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Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Heptachlorodibenzofuran 1,2,3,4,7,8,9-

CAS Number: 055673-89-7

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:		Water Solub:			
Gas Migration:		Distrib:			
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:			
		Non Liq. Karst:			
		Non Karst:			

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	0
				Salt Tox:	0
Persistence		Persistence		Persistence	
River:	0.4000	River:	0.4000	River:	0.4000
Lake:	0.0700	Lake:	0.0700	Lake:	0.0700
		Bioaccumulation		Bioaccumulation	
		Fresh:	0.5	Fresh:	0.5
		Salt:	0.5	Salt:	0.5

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:	4.3E-3	mg/kg	MCL:		pCi/m ³
Cancer Risk:	5.7E-8	mg/m ³	Cancer Risk:	5.7E-7	mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m ³			mg/L				CANCER RISK		
									Air:		pCi/m ³
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:	5.7E-7	mg/L	Cancer Risk:	2.1E-5	mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Hexabromobiphenyl (PBB)

CAS Number: 036355-01-8

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	6.3E+2		
Oral ED10 Wgt:				Density:		@	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	1.5E+4	mg/kg	RTECS				
Dermal LD50:	5.0E+3	mg/kg	RTECS				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:		µg/L					
Salt Ecol LC50:		µg/L					
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		Vapor Press:	5.2E-8	Torr	CHEMFATE
Volatility:	2.4E+2	days	THOMAS	Henry's Law:	4.3E-6	atm-m3/mol	PHYSPROP
Photolysis:		days		Water Solub:	3.2E-4	mg/L	CHEMFATE
Biodeg:		days		Distrib Coef:	2.9E+5	ml/g	DITOR_KD
Radio:		days		Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	1.7E+1	days	THOMAS				
Photolysis:		days					
Biodeg:		days					
Radio:		days					
Log Kow:	6.4E+0		PHYSPROP				
CLASS INFORMATION				BIOACCUMULATION			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
FOOD CHAIN							
Fresh BCF:							
Salt BCF:							
ENVIRONMENTAL							
Fresh BCF:	1.8E+4						ECOTOX
Salt BCF:							
Log Kow:	6.4E+0						PHYSPROP
Water Solub:	3.2E-4						CHEMFATE
Geo Mean Sol:		mg/L					
OTHER DATA							
Melting Point:	7.2E+1		C				
Boiling Point:							
Formula:	C ₁₂ H ₄ ClBr ₆						

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Hexabromobiphenyl (PBB)

CAS Number: 036355-01-8

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	1
Gas Mobility:	0.0002
Gas Migration:	6

Parameter	Value
Toxicity:	1
Water Solub:	3.2E-4
Distrib:	2.9E+5
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	2.0E-5
Non Karst:	2.0E-9

Parameter	Value
Toxicity:	1

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	1

Parameter	Value
Toxicity:	1

Parameter	Value
Fresh Tox:	0
Salt Tox:	0

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m ³
Cancer Risk:		mg/m ³
Non Cancer Risk:		mg/m ³

Parameter	Value	Unit
MCL/MCLG:		MCL/MCLG:
Cancer Risk:		Cancer Risk:
Non Cancer Risk:		Non Cancer Risk:

Parameter	Value	Unit
Cancer Risk:		mg/L
Non Cancer Risk:		mg/L

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m ³
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit
MCL/MCLG:		mg/L
Cancer Risk:		mg/L
Non Cancer Risk:		mg/L

Parameter	Value	Unit
FDAAL:		ppm
Cancer Risk:		mg/kg
Non Cancer Risk:		mg/kg

Parameter	Value	Unit
ACUTE		
Fresh CMC:		µg/L
Salt CMC:		µg/L

CHRONIC	
Fresh CCC:	
Salt CCC:	

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Hexachlorobenzene

CAS Number: 000118-74-1

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	8.0E-4	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	1.6E+0	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral Lt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:	1.6E+0	(mg/kg/day)^-1	IRIS	Radionuclide:	No		
Inhal Lt-of-Evid:	B2			Rad. Element:	No		
Oral ED10:	2.6E-2	mg/kg/day	EPA_ED10	Molecular Weight:	2.8E+2		
Oral ED10 Wgt:	B2			Density:	2.0E+0	g/mL @ 23.00 C	
Inhal ED10:	2.6E-2	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	B2						
Oral LD50:	1.7E+3	mg/kg	ACGIH				
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:	3.3E+3	mg/L	RTECS				
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	3.0E+1	µg/L	ECOTOX				
Salt Ecol LC50:		µg/L					
PERSISTENCE							
Parameter	Value	Unit	Source				
LAKE - Halflives							
Hydrolysis:		days					
Volatility:	1.5E+2	days	THOMAS				
Photolysis:		days					
Biodeg:	1.5E+3	days	CHEMFATE				
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	1.6E+0	days	THOMAS				
Photolysis:		days					
Biodeg:	1.5E+3	days	CHEMFATE				
Radio:		days					
Log Kow:	5.3E+0		CHEMFATE				

MOBILITY			
Parameter	Value	Unit	Source
Vapor Press:	1.8E-5	Torr	CHEMFATE
Henry's Law:	1.3E-3	atm-m3/mol	CHEMFATE
Water Solub:	6.2E-6	mg/L	CHEMFATE
Distrib Coef:	1.1E+2	ml/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:	1.8E+5		ECOTOX
Salt BCF:	5.1E+5		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	9.2E+5		ECOTOX
Salt BCF:	5.1E+5		ECOTOX
Log Kow:	5.3E+0		CHEMFATE
Water Solub:	6.2E-6		CHEMFATE
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	2.3E+2	C
Boiling Point:	3.3E+2	C
Formula:	C6 Cl6	

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Hexachlorobenzene

CAS Number: 000118-74-1

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	1000
Gas Mobility:	0.0200
Gas Migration:	11

Parameter	Value
Toxicity:	1000
Water Solub:	6.2E-6
Distrib:	1.1E+2
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	2.0E-5
Non Karst:	2.0E-7

Parameter	Value
Toxicity:	1000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	1000

Parameter	Value
Toxicity:	1000

Parameter	Value
Fresh Tox:	10000
Salt Tox:	10000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:	1.0E-3	mg/L	Cancer Risk:	4.0E-1	mg/kg	MCL:		pCi/L
Cancer Risk:	5.3E-6	mg/m ³	Cancer Risk:	5.3E-5	mg/L	Non Cancer Risk:	6.3E+1	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m ³	Non Cancer Risk:	2.9E-2	mg/L				CANCER RISK		
									Air:	pCi/m ³	
									DW:	pCi/L	
									FC:	pCi/kg	
									Soil Ing:	pCi/kg	
									Soil Gam:	pCi/kg	

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:	1.0E-3	mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:	5.3E-5	mg/L	Cancer Risk:	2.0E-3	mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:	2.9E-2	mg/L	Non Cancer Risk:	1.1E+0	mg/kg	Salt CMC:		µg/L

CHRONIC

Fresh CCC:		µg/L
Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Hexachlorobutadiene

CAS Number: 000087-68-3

TOXICITY				PHYSICAL CHARACTERISTICS			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>		
Oral RfD:	2.0E-4	mg/kg/day	HEAST	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	7.8E-2	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral Wt-of-Evid:	C			Particulate:	No		
Inhal Slope:	7.7E-2	(mg/kg/day)^-1	IRIS	Radionuclide:	No		
Inhal Wt-of-Evid:	C			Rad. Element:	No		
Oral ED10:	1.7E+0	mg/kg/day	EPA_ED10	Molecular Weight:	2.6E+2		
Oral ED10 Wgt:	C			Density:	1.6E+0	g/mL @ 25.00	C
Inhal ED10:	1.7E+0	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	C						
Oral LD50:	4.6E+1	mg/kg	ACGIH				
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		μg/L		MOBILITY			
Salt CMC:		μg/L		<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
CHRONIC				Vapor Press:	2.2E-1	Torr	CHEMFATE
Fresh CCC:		μg/L		Henry's Law:	8.1E-3	atm·m3/mol	CHEMFATE
Salt CCC:		μg/L		Water Solub:	3.2E+0	mg/L	CHEMFATE
Fresh Ecol LC50:	6.0E+1	μg/L	ECOTOX	Distrib Coef:	7.6E+3	ml/g	DITOR_KD
Salt Ecol LC50:	4.5E+2	μg/L	ECOTOX	Geo Mean Sol:		mg/L	
PERSISTENCE							
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	BIOACCUMULATION			
LAKE - Halflives							
Hydrolysis:		days		<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Volatility:	1.4E+2	days	THOMAS	FOOD CHAIN			
Photolysis:		days		Fresh BCF:	6.0E+1		VER_BCF
Biodeg:	1.8E+2	days	FATERATE	Salt BCF:	1.0E+4		ECOTOX
Radio:		days		ENVIRONMENTAL			
RIVER - Halflives							
Hydrolysis:		days		Fresh BCF:	2.3E+3		VER_BCF
Volatility:	1.5E+0	days	THOMAS	Salt BCF:	1.0E+4		ECOTOX
Photolysis:		days		Log Kow:	4.8E+0		CHEMFATE
Biodeg:	1.8E+2	days	FATERATE	Water Solub:	3.2E+0		CHEMFATE
Radio:		days		Geo Mean Sol:		mg/L	
Log Kow:	4.8E+0		CHEMFATE	OTHER DATA			
CLASS INFORMATION							
		<u>Class</u>			<u>Melting Point:</u>	-2.1E+1	C
					<u>Boiling Point:</u>	2.2E+2	C
					<u>Formula:</u>	C4 Cl6	

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Hexachlorobutadiene

CAS Number: 000087-68-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Gas Mobility:	1.0000
Gas Migration:	17

GROUND WATER PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Water Solub:	3.2E+0
Distrib:	7.6E+3
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	2.0E-1
Non Karst:	2.0E-5

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

HUMAN FOOD CHAIN

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	10000
Salt Tox:	1000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	50.0
Salt:	50000.0

Bioaccumulation	
Fresh:	5000.0
Salt:	50000.0

BENCHMARKS

AIR PATHWAY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		<u>µg/m³</u>	MCL/MCLG:		<u>mg/L</u>	Cancer Risk:	8.2E+0	<u>mg/kg</u>
Cancer Risk:	1.1E-4	<u>mg/m³</u>	Cancer Risk:	1.1E-3	<u>mg/L</u>	Non Cancer Risk:	1.6E+1	<u>mg/kg</u>
Non Cancer Risk:		<u>mg/m³</u>	Non Cancer Risk:	7.3E-3	<u>mg/L</u>			

GROUND WATER PATHWAY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
FDAAL:					

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL:		<u>pCi/L</u>	MCL:		<u>pCi/L</u>
UMTRCA:			UMTRCA:		<u>pCi/kg</u>
CANCER RISK			Air:		<u>pCi/m³</u>

DW:	<u>pCi/L</u>
FC:	<u>pCi/kg</u>
Soil Ing:	<u>pCi/kg</u>
Soil Gam:	<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>mg/L</u>
Cancer Risk:	1.1E-3	<u>mg/L</u>

HUMAN FOOD CHAIN

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
FDAAL:		<u>ppm</u>
Cancer Risk:	4.0E-2	<u>mg/kg</u>

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:		<u>µg/L</u>
Salt CMC:		<u>µg/L</u>
CHRONIC		
Fresh CCC:		<u>µg/L</u>
Salt CCC:		<u>µg/L</u>

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Hexachlorocyclohexane, alpha-

CAS Number: 000319-84-6

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value		
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	6.3E+0	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:	6.3E+0	(mg/kg/day)^-1	IRIS	Radionuclide:	No		
Inhal Wt-of-Evid:	B2			Rad. Element:	No		
Oral ED10:	1.9E-2	mg/kg/day	EPA_ED10	Molecular Weight:			
Oral ED10 Wgt:	B2			Density:	g/mL @		C
Inhal ED10:	1.9E-2	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	B2						
Oral LD50:	7.8E+1	mg/kg	RTECS				
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE				MOBILITY			
Fresh CMC:		µg/L		Parameter	Value	Unit	Source
Salt CMC:		µg/L		Vapor Press:	4.5E-5	Torr	CHEMFATE
CHRONIC				Henry's Law:	1.1E-5	atm-m3/mol	CHEMFATE
Fresh CCC:		µg/L		Water Solub:	2.0E+0	mg/L	CHEMFATE
Salt CCC:		µg/L		Distrib Coef:	2.5E+0	ml/g	SSG_KD
Fresh Ecol LC50:	8.2E+2	µg/L	ECOTOX	Geo Mean Sol:	mg/L		
Salt Ecol LC50:	4.0E+2	µg/L	ECOTOX				
PERSISTENCE				BIOACCUMULATION			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives				FOOD CHAIN			
Hydrolysis:	2.1E+2	days	FATERATE	Fresh BCF:	2.8E+3		ECOTOX
Volatility:		days		Salt BCF:	2.5E+5		ECOTOX
Photolysis:		days					
Biodeg:	1.4E+2	days	FATERATE	ENVIRONMENTAL			
Radio:		days		Fresh BCF:	2.8E+3		ECOTOX
				Salt BCF:	2.5E+5		ECOTOX
RIVER - Halflives				Log Kow:	3.8E+0		CHEMFATE
Hydrolysis:	2.1E+2	days	FATERATE	Water Solub:	2.0E+0		CHEMFATE
Volatility:		days		Geo Mean Sol:	mg/L		
Photolysis:		days					
Biodeg:	1.4E+2	days	FATERATE				
Radio:		days					
Log Kow:	3.8E+0		CHEMFATE	OTHER DATA			
CLASS INFORMATION							
Class				Melting Point:		C	
				Boiling Point:		C	
				Formula:	C6 H6 Cl6		

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Hexachlorocyclohexane, alpha-

CAS Number: 000319-84-6

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:	0.0200	Water Solub:	2.0E+0		
Gas Migration:	11	Distrib:	2.5E+0		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	2.0E-1		
		Non Karst:	2.0E-1		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	1000
				Salt Tox:	1000
Persistence		Persistence		Persistence	
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	5000.0	Fresh:	5000.0
		Salt:	50000.0	Salt:	50000.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIOMUCLIDE	
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:	1.0E-1
Cancer Risk:	1.4E-6	mg/m ³	Cancer Risk:	1.4E-5	mg/L	Non Cancer Risk:	
Non Cancer Risk:		mg/m ³	Non Cancer Risk:		mg/L		
						CANCER RISK	
						Air:	pCi/m ³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAL:		ppm
Cancer Risk:	1.4E-5	mg/L	Cancer Risk:	5.0E-4	mg/kg
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:

REFERENCE 2

Page 200

SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Hexachlorocyclohexane, beta-

CAS Number: 000319-85-7

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	1.8E+0	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	C		
Inhal Slope:	1.9E+0	(mg/kg/day)^-1	IRIS
Inhal Wt-of-Evid:	C		
Oral ED10:	9.4E-2	mg/kg/day	EPA_ED10
Oral ED10 Wgt:			
Inhal ED10:	9.4E-2	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:			
Oral LD50:	6.0E+3	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	

ACUTE

Fresh CMC:	$\mu\text{g/L}$
Salt CMC:	$\mu\text{g/L}$

CHRONIC

Fresh CCC:	$\mu\text{g/L}$
Salt CCC:	$\mu\text{g/L}$

Fresh Ecol LC50:	7.7E+2	$\mu\text{g/L}$	ECOTOX
Salt Ecol LC50:		$\mu\text{g/L}$	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:	2.1E+2	days	FATERATE
Volatility:	2.5E+2	days	THOMAS
Photolysis:		days	
Biodeg:	1.2E+2	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:	2.1E+2	days	FATERATE
Volatility:	9.7E+1	days	THOMAS
Photolysis:		days	
Biodeg:	1.2E+2	days	FATERATE
Radio:		days	
Log Kow:	3.8E+0		CHEMFATE

Log Kow: 3.8E+0 CHEMFATE

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>
Metal Contain:	No
Organic:	Yes
Gas:	Yes
Particulate:	Yes
Radionuclide:	No
Rad. Element:	No
Molecular Weight:	2.9E+2
Density:	1.9E+0 g/mL @ 19.00 C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.7E-7	Torr	CHEMFATE
Henry's Law:	7.4E-7	atm-m3/mol	CHEMFATE
Water Solub:	2.4E-1	mg/L	CHEMFATE
Distrib Coef:	2.5E+0	ml/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	2.9E+2		ECOTOX
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:	1.5E+3		ECOTOX
Salt BCF:			
Log Kow:	3.8E+0		CHEMFATE
Water Solub:	2.4E-1		CHEMFATE
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:		C
Boiling Point:	6.0E+1	C
Formula:	C6 H6 Cl6	

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Hexachlorocyclohexane, beta-

CAS Number: 000319-85-7

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	100	Toxicity:	100	Toxicity:	100
Gas Mobility:	0.0020	Water Solub:	2.4E-1		
Gas Migration:	6	Distrib:	2.5E+0		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	2.0E-3		
		Non Karst:	2.0E-3		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	100	Toxicity:	100	Fresh Tox:	1000
				Salt Tox:	1000
Persistence		Persistence		Persistence	
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	500.0	Fresh:	5000.0
		Salt:	500.0	Salt:	5000.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIOMUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		<u>µg/m³</u>	MCL/MCLG:		<u>mg/L</u>	Cancer Risk:	3.5E-1
Cancer Risk:	4.6E-6	<u>mg/m³</u>	Cancer Risk:	4.7E-5	<u>mg/L</u>	Non Cancer Risk:	
Non Cancer Risk:		<u>mg/m³</u>	Non Cancer Risk:		<u>mg/L</u>		
						MCL:	<u>pCi/L</u>
						UMTRCA:	<u>pCi/kg</u>
						CANCER RISK	
						Air:	<u>pCi/m³</u>
						DW:	<u>pCi/L</u>
						FC:	<u>pCi/kg</u>
						Soil Ing:	<u>pCi/kg</u>
						Soil Gam:	<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>mg/L</u>	FDAAL:		<u>ppm</u>
Cancer Risk:	4.7E-5	<u>mg/L</u>	Cancer Risk:	1.8E-3	<u>mg/kg</u>
Non Cancer Risk:		<u>mg/L</u>	Non Cancer Risk:		<u>mg/kg</u>
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:
					<u>µg/L</u>
					<u>µg/L</u>

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Hexachlorodibenzo-p-dioxin 1,2,3,4,7,8-

CAS Number: 039227-28-6

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	6.0E+3	(mg/kg/day)^-1	LIVECHEM
Oral Wt-of-Evid:	B2		
Inhal Slope:	6.0E+3	(mg/kg/day)^-1	LIVECHEM
Inhal Wt-of-Evid:	B2		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:	1.0E+2	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L

Fresh Ecol LC50:	μg/L
Salt Ecol LC50:	μg/L

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Metal Contain:	No		
Organic:	Yes		
Gas:	No		
Particulate:	Yes		
Radionuclide:	No		
Rad. Element:	No		
Molecular Weight:	3.9E+2		
Density:		g/mL @	C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.8E-11	Torr	PHYSPROP
Henry's Law:	4.0E-6	atm-m ³ /mol	PHYSPROP
Water Solub:	4.4E-6	mg/L	PHYSPROP
Distrib Coef:	7.1E+6	ml/g	DITOR_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:			
Salt BCF:			
Log Kow:	7.8E+0		PHYSPROP
Water Solub:	4.4E-6		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:		C
Boiling Point:		C
Formula:	C12 H2 Cl6 O2	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	1.9E+2	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:	1.4E+1	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	7.8E+0		PHYSPROP

CLASS INFORMATION

<u>Class</u>	<u>Parent Substance</u>
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REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Hexachlorodibenzo-p-dioxin 1,2,3,4,7,8-

CAS Number: 039227-28-6

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:		Water Solub:	4.4E-6		
Gas Migration:		Distrib:	7.1E+6		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-4		
		Non Liq. Karst:	2.0E-5		
		Non Karst:	2.0E-9		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	0
Persistence		Persistence		Salt Tox:	0
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	50000.0	Fresh:	50000.0
		Salt:	50000.0	Salt:	50000.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value
NAAQS/NESHAPS:		µg/m³	MCL/MCLG:		mg/L	Cancer Risk:	1.1E-4
Cancer Risk:	1.4E-9	mg/m³	Cancer Risk:	1.4E-8	mg/L	Non Cancer Risk:	
Non Cancer Risk:		mg/m³	Non Cancer Risk:		mg/L		
						Parameter	Value
						MCL:	Unit
						UMTRCA:	pCi/L
						CANCER RISK	pCi/kg
						Air:	pCi/m³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL		
Parameter	Value	Unit	Parameter	Value	Unit	
MCL/MCLG:		mg/L	FDAAL:		ppm	
Cancer Risk:	1.4E-8	mg/L	Cancer Risk:	5.3E-7	mg/kg	
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	
					Parameter	Value
					ACUTE	
					Fresh CMC:	µg/L
					Salt CMC:	µg/L
					CHRONIC	
					Fresh CCC:	µg/L
					Salt CCC:	µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-

CAS Number: 057653-85-7

TOXICITY				PHYSICAL CHARACTERISTICS	
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>
Oral RfD:		mg/kg/day		Metal Contain:	No
Inhal RfD:		mg/kg/day		Organic:	Yes
Oral Slope:	6.0E+3	(mg/kg/day)^-1	LIVECHEM	Gas:	No
Oral Wt-of-Evid:	B2			Particulate:	Yes
Inhal Slope:	6.0E+3	(mg/kg/day)^-1	LIVECHEM	Radionuclide:	No
Inhal Wt-of-Evid:	B2			Rad. Element:	No
Oral ED10:		mg/kg/day		Molecular Weight:	3.9E+2
Oral ED10 Wgt:		mg/kg/day		Density:	@
Inhal ED10:		mg/kg/day			
Inhal ED10 Wgt:		mg/kg/day			
Oral LD50:	1.3E+0	mg/kg	RTECS		
Dermal LD50:		mg/kg			
Gas Inhal LC50:		ppm			
Dust Inhal LC50:		mg/L			
ACUTE					
Fresh CMC:		µg/L			
Salt CMC:		µg/L			
CHRONIC					
Fresh CCC:		µg/L			
Salt CCC:		µg/L			
Fresh Ecol LC50:		µg/L			
Salt Ecol LC50:		µg/L			
MOBILITY					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>		
Vapor Press:	3.6E-11	Torr	PHYSPROP		
Henry's Law:	1.9E-6	atm-m3/mol	PHYSPROP		
Water Solub:		mg/L	PHYSPROP		
Distrib Coef:	1.8E+7	ml/g	DITOR_KD		
Geo Mean Sol:		mg/L			

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives				FOOD CHAIN			
Hydrolysis:		days		Fresh BCF:	2.8E+3		ECOTOX
Volatility:	2.0E+2	days	THOMAS	Salt BCF:			
Photolysis:		days					
Biodeg:		days					
Radio:		days					
ENVIRONMENTAL							
Hydrolysis:		days		Fresh BCF:	5.8E+3		ECOTOX
Volatility:	2.7E+1	days	THOMAS	Salt BCF:			
Photolysis:		days		Log Kow:	8.2E+0		PHYSPROP
Biodeg:		days		Water Solub:			PHYSPROP
Radio:		days		Geo Mean Sol:		mg/L	
Log Kow:	8.2E+0		PHYSPROP				
OTHER DATA							
Melting Point:	2.9E+2		C				
Boiling Point:							
Formula:			C12H2Cl6O2				

CLASS INFORMATION	
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Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-

CAS Number: 057653-85-7

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Gas Mobility:	
Gas Migration:	

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Water Solub:	
Distrib:	1.8E+7
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	
Non Karst:	

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	0
Salt Tox:	0

Persistence River:	1.0000
Lake:	1.0000

Persistence River:	1.0000
Lake:	1.0000

Persistence River:	1.0000
Lake:	1.0000

Bioaccumulation Fresh:	5000.0
Salt:	5000.0

Bioaccumulation Fresh:	5000.0
Salt:	5000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:	
Cancer Risk:	1.4E-9
Non Cancer Risk:	

<u>Parameter</u>	<u>Value</u>
Unit	
µg/m ³	MCL/MCLG:
mg/m ³	Cancer Risk:
mg/m ³	Non Cancer Risk:

<u>Parameter</u>	<u>Value</u>
Unit	
mg/L	Cancer Risk:
mg/L	Non Cancer Risk:

<u>Parameter</u>	<u>Value</u>
Unit	
mg/kg	MCL:
mg/kg	UMTRCA:
CANCER RISK	
Air:	pCi/m ³
DW:	pCi/L
FC:	pCi/kg
Soil Ing:	pCi/kg
Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	
Cancer Risk:	1.4E-8
Non Cancer Risk:	

<u>Parameter</u>	<u>Value</u>
Unit	
mg/L	FDAAL:
mg/L	Cancer Risk:
mg/L	Non Cancer Risk:

<u>Parameter</u>	<u>Value</u>
Unit	
ppm	
mg/kg	FRESH CMC:
mg/kg	SALT CMC:

CHRONIC
Fresh CCC:
Salt CCC:

µg/L
µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-

CAS Number: 019408-74-3

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	6.2E+3	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		
Inhal Slope:	4.6E+3	(mg/kg/day)^-1	IRIS
Inhal Wt-of-Evid:	B2		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:	6.0E-2	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L
Fresh Ecol LC50:	μg/L
Salt Ecol LC50:	μg/L

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	2.0E+2	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:	2.7E+1	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	8.2E+0		PHYSPROP

CLASS INFORMATION			
<u>Class</u>	<u>Parent Substance</u>		

PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>
Metal Contain:	No
Organic:	Yes
Gas:	No
Particulate:	Yes
Radionuclide:	No
Rad. Element:	No
Molecular Weight:	3.9E+2
Density:	g/mL @ C

MOBILITY			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.9E-11	Torr	PHYSPROP
Henry's Law:	1.9E-6	atm-m3/mol	PHYSPROP
Water Solub:	2.7E-5	mg/L	PHYSPROP
Distrib Coef:	1.8E+7	ml/g	DITOR_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:	8.2E+0	PHYSPROP
Salt BCF:	2.7E-5	PHYSPROP
Geo Mean Sol:	mg/L	

OTHER DATA			
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Melting Point:	C
Boiling Point:	C
Formula:	C12 H2 Cl6 O2

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-

CAS Number: 019408-74-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Gas Mobility:	
Gas Migration:	

GROUND WATER PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Water Solub:	2.7E-5
Distrib:	1.8E+7
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	2.0E-5
Non Karst:	2.0E-9

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

HUMAN FOOD CHAIN

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	0
Salt Tox:	0

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

BENCHMARKS

AIR PATHWAY

<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:	
Cancer Risk:	1.9E-9
Non Cancer Risk:	

GROUND WATER PATHWAY

<u>Parameter</u>	<u>Value</u>
Unit	
µg/m ³	MCL/MCLG:
mg/m ³	Cancer Risk:
mg/m ³	Non Cancer Risk:

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Unit	
mg/kg	Cancer Risk:
mg/kg	Non Cancer Risk:

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m ³
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Garm:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	
Cancer Risk:	1.4E-8
Non Cancer Risk:	

HUMAN FOOD CHAIN

<u>Parameter</u>	<u>Value</u>
Unit	
mg/L	FDAAL:
mg/L	Cancer Risk:
mg/L	Non Cancer Risk:

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:		µg/L
Salt CMC:		µg/L
CHRONIC		
Fresh CCC:		µg/L
Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Hexachlorodibenzofuran 1,2,3,4,7,8-

CAS Number: 070648-26-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	1.5E+3	(mg/kg/day)^-1	LIVECHEM
Oral Wt-of-Evid:	B2		
Inhal Slope:	1.5E+3	(mg/kg/day)^-1	LIVECHEM
Inhal Wt-of-Evid:	B2		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L

Fresh Ecol LC50:	μg/L
Salt Ecol LC50:	μg/L

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	

Log Kow: 9.5E+0 RTI_LOGP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>		
Metal Contain:	No		
Organic:	Yes		
Gas:	No		
Particulate:	Yes		
Radionuclide:	No		
Rad. Element:	No		
Molecular Weight:	3.7E+2		
Density:	g/mL @ C		

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m ³ /mol	
Water Solub:	2.5E-5	mg/L	CHEMCALC
Distrib Coef:	3.5E+8	ml/g	DITOR_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:	9.5E+0	RTI_LOGP
Water Solub:	2.5E-5	CHEMCALC
Geo Mean Sol:		mg/L

OTHER DATA

Melting Point:	C
Boiling Point:	C
Formula:	C ₁₂ H ₂ Cl ₆ O

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Hexachlorodibenzofuran 1,2,3,4,7,8-

CAS Number: 070648-26-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:		Water Solub:	2.5E-5		
Gas Migration:		Distrib:	3.5E+8		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-4		
		Non Liq. Karst:	2.0E-5		
		Non Karst:	2.0E-9		

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	0
Persistence		Persistence		Salt Tox:	0
River:	1.0000	River:	1.0000	Persistence	
Lake:	1.0000	Lake:	1.0000	River:	1.0000
		Bioaccumulation		Lake:	1.0000
		Fresh:	50000.0	Bioaccumulation	
		Salt:	50000.0	Fresh:	50000.0
				Salt:	50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:	4.3E-4	mg/kg	MCL:		pCi/L
Cancer Risk:	5.7E-9	mg/m ³	Cancer Risk:	5.7E-8	mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m ³	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:		pCi/m ³
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAI:		ppm	ACUTE		
Cancer Risk:	5.7E-8	mg/L	Cancer Risk:	2.1E-6	mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Hexachlorodibenzofuran 1,2,3,6,7,8-

CAS Number: 057117-44-9

TOXICITY				PHYSICAL CHARACTERISTICS			
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Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	1.5E+3	(mg/kg/day)^-1	LIVECHEM	Gas:	No		
Oral Wt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:	1.5E+3	(mg/kg/day)^-1	LIVECHEM	Radiation:	No		
Inhal Wt-of-Evid:	B2			Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	3.7E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	g/mL @ C		
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:		µg/L					
Salt Ecol LC50:		µg/L					

PERSISTENCE			
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Parameter	Value	Unit	Source
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:			

Log Kow:

MOBILITY			
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Parameter	Value	Unit	Source
Vapor Press:		Torr	
Henry's Law:		atm-m ³ /mol	
Water Solub:		mg/L	
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
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Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA			
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Melting Point:		C
Boiling Point:		C
Formula:	C ₁₂ H ₂ Cl ₆ O	

CLASS INFORMATION			
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Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Hexachlorodibenzofuran 1,2,3,6,7,8-

CAS Number: 057117-44-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	10000
Gas Mobility:	
Gas Migration:	

Parameter	Value
Toxicity:	10000
Water Solub:	
Distrib:	
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	
Non Liq. Karst:	
Non Karst:	

Parameter	Value
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	10000

Parameter	Value
Toxicity:	10000

Parameter	Value
Fresh Tox:	0
Salt Tox:	0

Persistence	
River:	0.4000
Lake:	0.0700

Persistence	
River:	0.4000
Lake:	0.0700

Persistence	
River:	0.4000
Lake:	0.0700

Bioaccumulation

Fresh:	0.5
Salt:	0.5

Bioaccumulation

Fresh:	0.5
Salt:	0.5

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value
NAAQS/NESHAPS:	
Cancer Risk:	5.7E-9
Non Cancer Risk:	

Parameter	Value
Unit	
µg/m ³	
MCL/MCLG:	
mg/m ³	
Cancer Risk:	5.7E-8
Non Cancer Risk:	

Parameter	Value
Unit	
mg/L	
Cancer Risk:	4.3E-4
Non Cancer Risk:	

Parameter	Value
Unit	
MCL:	pCi/L
UMTRCA:	pCi/kg
CANCER RISK	
Air:	pCi/m ³
DW:	pCi/L
FC:	pCi/kg
Soil Ing:	pCi/kg
Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
MCL/MCLG:	
Cancer Risk:	5.7E-8
Non Cancer Risk:	

Parameter	Value
Unit	
mg/L	
FDAAL:	
mg/L	
Cancer Risk:	2.1E-6
Non Cancer Risk:	

Parameter	Value
Unit	
ppm	
ACUTE	
Fresh CMC:	
Salt CMC:	

CHRONIC	
Fresh CCC:	
Salt CCC:	

µg/L	
µg/L	

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Hexachlorodibenzofuran 1,2,3,7,8,9-

CAS Number: 072918-21-9

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	1.5E+3	(mg/kg/day)^-1	LIVECHEM	Gas:	No		
Oral Wt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:	1.5E+3	(mg/kg/day)^-1	LIVECHEM	Radionuclide:	No		
Inhal Wt-of-Evid:	B2			Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	3.7E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	g/mL @ C		
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:		µg/L					
Salt Ecol LC50:		µg/L					
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		Vapor Press:		Torr	
Volatility:		days		Henry's Law:		atm-m ³ /mol	
Photolysis:		days		Water Solub:		mg/L	
Biodeg:		days		Distrib Coef:		ml/g	
Radio:		days		Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:		days					
Log Kow:							
CLASS INFORMATION				BIOACCUMULATION			
Class	Parent Substance			Parameter	Value	Unit	Source
				FOOD CHAIN			
				Fresh BCF:			
				Salt BCF:			
ENVIRONMENTAL							
				Fresh BCF:			
				Salt BCF:			
				Log Kow:			
				Water Solub:			
				Geo Mean Sol:		mg/L	
OTHER DATA				OTHER DATA			
				Melting Point:		C	
				Boiling Point:		C	
				Formula:	C ₁₂ H ₂ Cl ₆ O		

Log Kow:

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Hexachlorodibenzofuran 1,2,3,7,8,9-

CAS Number: 072918-21-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Gas Mobility:	
Gas Migration:	

GROUND WATER PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Water Solub:	
Distrib:	
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	
Non Liq. Karst:	
Non Karst:	

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

HUMAN FOOD CHAIN

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	0
Salt Tox:	0

Persistence	
River:	0.4000
Lake:	0.0700

Persistence	
River:	0.4000
Lake:	0.0700

Persistence	
River:	0.4000
Lake:	0.0700

Bioaccumulation

Fresh:	0.5
Salt:	0.5

Bioaccumulation

Fresh:	0.5
Salt:	0.5

BENCHMARKS

AIR PATHWAY

<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:	5.7E-9
Cancer Risk:	mg/m ³
Non Cancer Risk:	mg/m ³

GROUND WATER PATHWAY

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	5.7E-8
Cancer Risk:	mg/m ³
Non Cancer Risk:	mg/m ³

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Cancer Risk:	4.3E-4
Non Cancer Risk:	mg/kg

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>
MCL:	pCi/L
UMTRCA:	pCi/kg
CANCER RISK	
Air:	pCi/m ³
DW:	pCi/L
FC:	pCi/kg
Soil Ing:	pCi/kg
Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	5.7E-8
Cancer Risk:	mg/L
Non Cancer Risk:	mg/L

HUMAN FOOD CHAIN

<u>Parameter</u>	<u>Value</u>
FDAAL:	
Cancer Risk:	2.1E-6
Non Cancer Risk:	mg/kg

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
ACUTE	
Fresh CMC:	µg/L
Salt CMC:	µg/L
CHRONIC	
Fresh CCC:	µg/L
Salt CCC:	µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Hexachlorodibenzofuran 2,3,4,6,7,8-

CAS Number: 060851-34-5

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>
Oral RfD:		mg/kg/day		Metal Contain:	No
Inhal RfD:		mg/kg/day		Organic:	Yes
Oral Slope:	1.5E+3	(mg/kg/day)^~1	LIVECHEM	Gas:	No
Oral Lt-of-Evid:	B2			Particulate:	Yes
Inhal Slope:	1.5E+3	(mg/kg/day)^~1	LIVECHEM	Radionuclide:	No
Inhal Lt-of-Evid:	B2			Rad. Element:	No
Oral ED10:		mg/kg/day		Molecular Weight:	3.7E+2
Oral ED10 Wgt:		mg/kg/day		Density:	g/mL @ C
Inhal ED10:		mg/kg/day			
Inhal ED10 Wgt:		mg/kg/day			
Oral LD50:	1.2E-1	mg/kg	RTECS		
Dermal LD50:		mg/kg			
Gas Inhal LC50:		ppm			
Dust Inhal LC50:		mg/L			

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L

Fresh Ecol LC50:	μg/L
Salt Ecol LC50:	μg/L

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
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LAKE - Halflives

Hydrolysis:	days
Volatility:	days
Photolysis:	days
Biodeg:	days
Radio:	days

RIVER - Halflives

Hydrolysis:	days
Volatility:	days
Photolysis:	days
Biodeg:	days
Radio:	days

Log Kow:

MOBILITY			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:		ml/g	
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:	
Salt BCF:	
Log Kow:	
Water Solub:	
Geo Mean Sol:	mg/L

OTHER DATA			
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Melting Point:		C
Boiling Point:		C
Formula:	C12 H2 Cl6 O	

Part 4

CLASS INFORMATION			
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Class Parent Substance

REFERENCE 2

Page 215

SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Hexachlorodibenzofuran 2,3,4,6,7,8-

CAS Number: 060851-34-5

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:		Water Solub:			
Gas Migration:		Distrib:			
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:			
		Non Liq. Karst:			
		Non Karst:			

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	0
				Salt Tox:	0
Persistence		Persistence		Persistence	
River:	0.4000	River:	0.4000	River:	0.4000
Lake:	0.0700	Lake:	0.0700	Lake:	0.0700
		Bioaccumulation		Bioaccumulation	
		Fresh:	0.5	Fresh:	0.5
		Salt:	0.5	Salt:	0.5

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:	4.3E-4
Cancer Risk:	5.7E-9	mg/m ³	Cancer Risk:	5.7E-8	mg/L	Non Cancer Risk:	
Non Cancer Risk:		mg/m ³	Non Cancer Risk:		mg/L		
						CANCER RISK	
						Air:	pCi/m ³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L	FDAAL:		ppm
Cancer Risk:	5.7E-8	mg/L	Cancer Risk:	2.1E-6	mg/kg
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Hydrazine

CAS Number: 000302-01-2

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	3.0E+0	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	No		
Inhal Slope:	1.7E+1	(mg/kg/day)^-1	IRIS	Radionuclide:	No		
Inhal Wt-of-Evid:	B2			Rad. Element:	No		
Oral ED10:	9.3E-3	mg/kg/day	EPA_ED10	Molecular Weight:	3.2E+1		
Oral ED10 Wgt:	C			Density:		g/mL @ C	
Inhal ED10:	9.3E-3	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	C						
Oral LD50:	6.0E+1	mg/kg	ACGIH				
Dermal LD50:	9.3E+1	mg/kg	ACGIH				
Gas Inhal LC50:	5.7E+2	ppm	ACGIH				
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L		MOBILITY			
Salt CMC:		µg/L		Parameter	Value	Unit	Source
CHRONIC				Vapor Press:	1.4E+1	Torr	CHEMFATE
Fresh CCC:		µg/L		Henry's Law:	6.1E-7	atm-m3/mol	PHYSPROP
Salt CCC:		µg/L		Water Solub:	1.0E+6	mg/L	CHEMFATE
Fresh Ecol LC50:	1.0E+1	µg/L	ECOTOX	Distrib Coef:	1.4E-3	ml/g	DITOR_KD
Salt Ecol LC50:	5.0E+3	µg/L	ECOTOX	Geo Mean Sol:		mg/L	
PERSISTENCE							
Parameter	Value	Unit	Source	BIOACCUMULATION			
LAKE - Halflives							
Hydrolysis:		days		Parameter	Value	Unit	Source
Volatility:	5.2E+1	days	THOMAS	FOOD CHAIN			
Photolysis:	6.8E-1	days	CHEMFATE	Fresh BCF:			
Biodeg:	7.0E+0	days	FATERATE	Salt BCF:			
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days		ENVIRONMENTAL			
Volatility:	5.2E+1	days	THOMAS	Fresh BCF:			
Photolysis:	6.8E-1	days	CHEMFATE	Salt BCF:			
Biodeg:	7.0E+0	days	FATERATE	Log Kow:	-2.1E+0		CHEMFATE
Radio:		days		Water Solub:	1.0E+6	mg/L	CHEMFATE
Log Kow:	-2.1E+0		CHEMFATE	Geo Mean Sol:			
CLASS INFORMATION							
		Class					
			Parent Substance				

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Hydrazine

CAS Number: 000302-01-2

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:	1.0000	Water Solub:	1.0E+6		
Gas Migration:	11	Distrib:	1.4E-3		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	10000
				Salt Tox:	100
Persistence		Persistence		Persistence	
River:	0.4000	River:	0.4000	River:	0.4000
Lake:	0.0700	Lake:	0.0700	Lake:	0.0700
		Bioaccumulation		Bioaccumulation	
		Fresh:	0.5	Fresh:	0.5
		Salt:	0.5	Salt:	0.5

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:	2.1E-1	pCi/L
Cancer Risk:	5.0E-7	mg/m ³	Cancer Risk:	2.8E-5	mg/L	Non Cancer Risk:		pCi/kg
Non Cancer Risk:		mg/m ³	Non Cancer Risk:		mg/L			CANCER RISK
								Air: pCi/m ³
								DW: pCi/L
								FC: pCi/kg
								Soil Ing: pCi/kg
								Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:	2.8E-5	mg/L	Cancer Risk:	1.1E-3	mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Hydrogen sulfide

CAS Number: 007783-06-4

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-2	mg/kg/day	HEAST
Inhal RfD:	5.7E-4	mg/kg/day	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:		(mg/kg/day)^-1	
Inhal Slope:		(mg/kg/day)^-1	
Inhal Wt-of-Evid:			
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:	4.4E+2	ppm	RTECS
Dust Inhal LC50:		mg/L	

ACUTE			
Fresh CMC:		μg/L	
Salt CMC:		μg/L	

CHRONIC			
Fresh CCC:	2.0E+0	F2	μg/L
Salt CCC:	2.0E+0	F2	μg/L

Fresh Ecol LC50:			
Fresh Ecol LC50:	2.0E+0	μg/L	ECOTOX
Salt Ecol LC50:	3.2E+1	μg/L	ECOTOX

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	1.3E-1	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:	1.3E-1	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	2.3E-1		PHYSPROP

Log Kow: 2.3E-1

CLASS INFORMATION			
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Class Parent Substance

<u>Parameter</u>	<u>Value</u>
Metal Contain:	No
Organic:	No
Gas:	Yes
Particulate:	No
Radionuclide:	No
Rad. Element:	No
Molecular Weight:	3.4E+1
Density:	1.5E-3 g/mL @ 0.00 C

MOBILITY			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.6E+4	Torr	CHEMFATE
Henry's Law:	8.6E-3	atm-m3/mol	PHYSPROP
Water Solub:	3.7E+3	mg/L	PHYSPROP
Distrib Coef:	9.9E+0	ml/g	DITOR_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			

Fresh BCF:
 Salt BCF:

ENVIRONMENTAL

Fresh BCF:	2.3E-1	PHYSPROP
Salt BCF:	3.7E+3	PHYSPROP
Geo Mean Sol:	mg/L	

OTHER DATA			
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Melting Point:	-8.6E+1	C
Boiling Point:	-6.1E+1	C
Formula:	H2 S	

REFERENCE 2

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Date: 1/28/2004
 Chemical: Hydrogen sulfide

CAS Number: 007783-06-4

SUPERFUND CHEMICAL DATA MATRIX

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	1000	Toxicity:	1000	Toxicity:	1000
Gas Mobility:	1.0000	Water Solub:	3.7E+3		
Gas Migration:	17	Distrib:	9.9E+0		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	1000	Toxicity:	1000	Fresh Tox:	1000
				Salt Tox:	1000
Persistence		Persistence		Persistence	
River:	0.0007	River:	0.0007	River:	0.0007
Lake:	0.0700	Lake:	0.0700	Lake:	0.0700
		Bioaccumulation		Bioaccumulation	
		Fresh:	0.5	Fresh:	0.5
		Salt:	0.5	Salt:	0.5

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:	
Cancer Risk:		mg/m ³	Cancer Risk:		mg/L	Non Cancer Risk:	2.3E+3
Non Cancer Risk:	2.1E-3	mg/m ³	Non Cancer Risk:	1.1E+0	mg/L		
						UMTRCA:	CANCER RISK
						Air:	
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L	FDAAL:		ppm
Cancer Risk:		mg/L	Cancer Risk:		mg/kg
Non Cancer Risk:	1.1E+0	mg/L	Non Cancer Risk:	4.1E+1	mg/kg
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC: 2.0E+0 ^{F2}
					Salt CCC: 2.0E+0 ^{F2}
					µg/L
					µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Indeno(1,2,3-cd)pyrene

CAS Number: 000193-39-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	7.3E-1	(mg/kg/day)^-1	LIVECHEM
Oral Wt-of-Evid:	B2	(mg/kg/day)^-1	
Inhal Slope:		(mg/kg/day)^-1	
Inhal Wt-of-Evid:		mg/kg/day	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg	
Oral LD50:		mg/kg	
Dermal LD50:		ppm	
Gas Inhal LC50:		mg/L	
Dust Inhal LC50:		mg/L	

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L

Fresh Ecol LC50:	μg/L
Salt Ecol LC50:	μg/L

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	2.7E+2	days	THOMAS
Photolysis:	2.5E+2	days	FATERATE
Biodeg:	7.3E+2	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:	1.2E+2	days	THOMAS
Photolysis:	2.5E+2	days	FATERATE
Biodeg:	7.3E+2	days	FATERATE
Radio:		days	
Log Kow:	6.6E+0		CHEMFATE

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Metal Contain:	No		
Organic:	Yes		
Gas:	No		
Particulate:	Yes		
Radionuclide:	No		
Rad. Element:	No		
Molecular Weight:	2.8E+2		
Density:		g/mL @ C	

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.0E-10	Torr	CHEMFATE
Henry's Law:	1.6E-6	atm-m3/mol	CHEMFATE
Water Solub:	2.2E-5	mg/L	CHEMFATE
Distrib Coef:	5.3E+5	ml/g	DITOR_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:			
Salt BCF:			
Log Kow:	6.6E+0		CHEMFATE
Water Solub:	2.2E-5		CHEMFATE
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	1.6E+2	C
Boiling Point:	5.4E+2	C
Formula:	C22 H12	

Log Kow: 6.6E+0 CHEMFATE

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Indeno(1,2,3-cd)pyrene

CAS Number: 000193-39-5

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000
Gas Mobility:	
Gas Migration:	

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000
Water Solub:	2.2E-5
Distrib:	5.3E+5
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	2.0E-5
Non Karst:	2.0E-9

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	0
Salt Tox:	0

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		<u>µg/m³</u>	MCL/MCLG:		<u>mg/L</u>
Cancer Risk:		<u>mg/m³</u>	Cancer Risk:	1.2E-4	<u>mg/L</u>
Non Cancer Risk:		<u>mg/m³</u>	Non Cancer Risk:		<u>mg/L</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		<u>µg/m³</u>	MCL/MCLG:		<u>mg/L</u>
Cancer Risk:		<u>mg/m³</u>	Cancer Risk:	1.2E-4	<u>mg/L</u>
Non Cancer Risk:		<u>mg/m³</u>	Non Cancer Risk:		<u>mg/L</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		<u>µg/m³</u>	MCL/MCLG:		<u>mg/kg</u>
Cancer Risk:		<u>mg/m³</u>	Cancer Risk:	8.8E-1	<u>mg/kg</u>
Non Cancer Risk:		<u>mg/m³</u>	Non Cancer Risk:		<u>mg/kg</u>

CANCER RISK	
Air:	<u>pCi/m³</u>
DW:	<u>pCi/L</u>
FC:	<u>pCi/kg</u>
Soil Ing:	<u>pCi/kg</u>
Soil Gam:	<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>mg/L</u>
Cancer Risk:	1.2E-4	<u>mg/L</u>
Non Cancer Risk:		<u>mg/L</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>mg/L</u>
Cancer Risk:	4.3E-3	<u>ppm</u>
Non Cancer Risk:		<u>mg/kg</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:		<u>µg/L</u>

CHRONIC	
Fresh CCC:	
Salt CCC:	

µg/L

µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Iron

CAS Number: 007439-89-6

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:		(mg/kg/day)^-1		Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	5.6E+1		
Oral ED10 Wgt:		mg/kg/day		Density:	7.9E+0	g/mL @	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:	2.0E+4	mg/kg	RTECS				
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:	1.0E+3	µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	5.6E+2	µg/L	ECOTOX				
Salt Ecol LC50:	3.3E+4	µg/L	ECOTOX				
PERSISTENCE							
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:		days					
Log Kow:	-7.7E-1		PHYSPROP	Melting Point:	1.5E+3	C	
				Boiling Point:	2.9E+3	C	
				Formula:	Fe		

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Iron

CAS Number: 007439-89-6

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	1
Gas Mobility:	
Gas Migration:	

<u>Parameter</u>	<u>Value</u>
Toxicity:	1
Water Solub:	
Distrib:	2.5E+1
Geo Mean Sol:	1.5E+3
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E-2

<u>Parameter</u>	<u>Value</u>
Toxicity:	1

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	1

<u>Parameter</u>	<u>Value</u>
Toxicity:	1

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	10
Salt Tox:	10

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	5000.0
Salt:	5000.0

Bioaccumulation	
Fresh:	5000.0
Salt:	5000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		<u>µg/m³</u>
Cancer Risk:		<u>mg/m³</u>
Non Cancer Risk:		<u>mg/m³</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>MCL/MCLG:</u>
Cancer Risk:		<u>Cancer Risk:</u>
Non Cancer Risk:		<u>Non Cancer Risk:</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Cancer Risk:		<u>mg/L</u>
Non Cancer Risk:		<u>mg/L</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL:		<u>pCi/L</u>
UMTRCA:		<u>pCi/kg</u>
CANCER RISK		
Air:		<u>pCi/m³</u>
DW:		<u>pCi/L</u>
FC:		<u>pCi/kg</u>
Soil Ing:		<u>pCi/kg</u>
Soil Gam:		<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>mg/L</u>
Cancer Risk:		<u>mg/L</u>
Non Cancer Risk:		<u>mg/L</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
FDAAL:		<u>ppm</u>
Cancer Risk:		<u>mg/kg</u>
Non Cancer Risk:		<u>mg/kg</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:		<u>µg/L</u>

CHRONIC
 Fresh CCC: 1.0E+3 F2
 Salt CCC: _____

µg/L
µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Iron 55 (radionuclide)

CAS Number: 014681-59-5

TOXICITY				PHYSICAL CHARACTERISTICS	
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>
Oral RfD:		mg/kg/day		Metal Contain:	Yes
Inhal RfD:		mg/kg/day		Organic:	No
Oral Slope:	Food: 1.16E-12 Soil: 2.09E-12 Water: 8.62E-13	(pCi) ⁻¹	HEAST	Gas:	No
Oral Wt-of-Evid:	A	(pCi) ⁻¹	HEAST	Particulate:	Yes
Inhal Slope:	8.0E-13	(pCi) ⁻¹	HEAST	Radionuclide:	Yes
Inhal Wt-of-Evid:	A			Rad. Element:	No
Oral ED10:		mg/kg/day		Molecular Weight:	5.5E+1
Oral ED10 Wgt:				Density:	7.9E+0 g/mL @ C
Inhal ED10:		mg/kg/day			
Inhal ED10 Wgt:					
Oral LD50:		mg/kg			
Dermal LD50:		mg/kg			
Gas Inhal LC50:		ppm			
Dust Inhal LC50:		mg/L			
ACUTE					
Fresh CMC:		µg/L			
Salt CMC:		µg/L			
CHRONIC					
Fresh CCC:		µg/L			
Salt CCC:		µg/L			
Fresh Ecol LC50:		µg/L			
Salt Ecol LC50:		µg/L			

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives				FOOD CHAIN			
Hydrolysis:		days		Fresh BCF:			
Volatility:		days		Salt BCF:	1.2E+3		ECOTOX
Photolysis:		days					
Biodeg:		days					
Radio:	1.1E+3	days	SSG-Rad				
RIVER - Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:	1.1E+3	days	SSG-Rad				
Log Kow:	-7.7E-1						
			PHYSPROP				

CLASS INFORMATION			
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<u>Class</u>	<u>Parent Substance</u>
GW Mob:	007439-89-6
Other:	007439-89-6

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Iron 55 (radionuclide)

CAS Number: 014681-59-5

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter Value

Toxicity: 100

Gas Mobility:

Gas Migration:

Parameter Value

Toxicity: 100

Water Solub:

Distrib: 2.5E+1

Geo Mean Sol: 1.5E+3

Mobility:

Liquid Karst: 1.0E+0

Non Karst: 1.0E-2

Non Liq. Karst: 1.0E+0

Non Karst: 1.0E-2

Parameter Value

Toxicity: 100

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value

Toxicity: 100

Parameter Value

Toxicity: 100

Parameter Value

Fresh Tox: 100

Persistence

River: 1.0000

Lake: 1.0000

Persistence

River: 1.0000

Lake: 1.0000

Persistence

River: 1.0000

Lake: 1.0000

Bioaccumulation

Fresh: 5000.0

Salt: 5000.0

Bioaccumulation

Fresh: 5000.0

Salt: 5000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter Value

NAAQS/NESHAPS: Unit

mg/m³

Cancer Risk:

mg/m³

Non Cancer Risk:

Parameter Value

MCL/MCLG: Unit

mg/m³

Cancer Risk:

mg/L

Non Cancer Risk:

Parameter Value

mg/kg

Cancer Risk:

mg/L

Non Cancer Risk:

Parameter Value

mg/kg

MCL: 2.0E+3

UMTRCA:

CANCER RISK

Parameter Value

pCi/L

Air: 6.0E+0

DW: 5.5E+1

FC: 1.5E+3

Soil Ing: 3.8E+5

Soil Gam:

Unit

pCi/L

pCi/kg

pCi/kg

pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value

MCL/MCLG: Unit

mg/L

Cancer Risk:

mg/L

Non Cancer Risk:

Parameter Value

FDAAL: Unit

ppm

Cancer Risk:

mg/kg

Non Cancer Risk:

Parameter Value

ACUTE

Fresh CMC:

mg/L

Salt CMC:

Unit

µg/L

CHRONIC

Fresh CCC:

µg/L

Salt CCC:

µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Lead

CAS Number: 007439-92-1

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:		(mg/kg/day)^-1		Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	2.1E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	1.1E+1	g/mL @	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg					
Oral LD50:		mg/kg					
Dermal LD50:		ppm					
Gas Inhal LC50:		mg/L					
Dust Inhal LC50:							
ACUTE				MOBILITY			
Fresh CMC:	6.5E+1	D, E, bb, gg	µg/L	Vapor Press:		Torr	
Salt CMC:	2.1E+2	D, bb	µg/L	Henry's Law:	2.5E-2	atm-m3/mol	PHYSPROP
CHRONIC				Water Solub:		mg/L	
Fresh CCC:	2.5E+0	D, E, bb, gg	µg/L	Distrib Coef:	9.0E+2	mL/g	BAES_KD
Salt CCC:	8.1E+0	D, bb	µg/L	Geo Mean Sol:	8.7E+2	mg/L	CALC
Fresh Ecol LC50:	4.4E+2	µg/L		BIOACCUMULATION			
Salt Ecol LC50:	1.1E+2	µg/L		ENVIRONMENTAL			
PERSISTENCE				FOOD CHAIN			
Parameter	Value	Unit	Source	Fresh BCF:	8.7E+0		ECOTOX
LAKE - Halflives				Salt BCF:	5.0E+3		ECOTOX
Hydrolysis:		days		OTHER DATA			
Volatility:		days		Log Kow:	7.3E-1		PHYSPROP
Photolysis:		days		Water Solub:			
Biodeg:		days		Geo Mean Sol:	8.7E+2	mg/L	CALC
Radio:		days		Melting Point:	3.3E+2	C	
RIVER - Halflives				Boiling Point:	1.7E+3	C	
Hydrolysis:		days		Formula:	Pb		
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:		days					
Log Kow:	7.3E-1		PHYSPROP				

CLASS INFORMATION

<u>Class</u>	<u>Parent Substance</u>
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REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Lead

CAS Number: 007439-92-1

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:		Water Solub:			
Gas Migration:		Distrib:	9.0E+2		
		Geo Mean Sol:	8.7E+2		
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-2		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E-2		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	1000
Persistence		Persistence		Salt Tox:	1000
River:	1.0000	River:	1.0000	Persistence	
Lake:	1.0000	Lake:	1.0000	River:	1.0000
		Bioaccumulation		Lake:	1.0000
		Fresh:	5.0	Bioaccumulation	
		Salt:	5000.0	Fresh:	50000.0
				Salt:	5000.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:	1.5E+0	µg/m³	MCL/MCLG:	1.5E-2	mg/L	Cancer Risk:	
Cancer Risk:		mg/m³	Cancer Risk:		mg/L	Non Cancer Risk:	
Non Cancer Risk:		mg/m³	Non Cancer Risk:		mg/L		
						MCL:	pCi/L
						UMTRCA:	pCi/kg
						CANCER RISK	
						Air:	pCi/m³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:	1.5E-2	mg/L	FDAAL:	ppm	
Cancer Risk:		mg/L	Cancer Risk:	mg/kg	
Non Cancer Risk:		mg/L	Non Cancer Risk:	mg/kg	
				ACUTE	
				Fresh CMC:	6.5E+1 D, E, bb, gg
				Salt CMC:	2.1E+2 D, bb
				CHRONIC	
				Fresh CCC:	2.5E+0 D, bb, gg
				Salt CCC:	8.1E+0 D, bb

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Lead 210(+D) (radionuclide)

CAS Number: 014255-04-0

TOXICITY				PHYSICAL CHARACTERISTICS			
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Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:	Food: 3.44E-09 Soil: 2.66E-09 Water: 1.27E-09	(pCi) ⁻¹	HEAST	Gas:	No		
Oral Wt-of-Evid:	A	(pCi) ⁻¹	HEAST	Particulate:	Yes		
Inhal Slope:	1.4E-8	(pCi) ⁻¹	HEAST	Radionuclide:	Yes		
Inhal Wt-of-Evid:	A			Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	2.1E+2		
Oral ED10 Wgt:				Density:	1.1E+1	g/mL @ 16.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					

CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:		µg/L					
Salt Ecol LC50:		µg/L					

PERSISTENCE				BIOACCUMULATION			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives				FOOD CHAIN			
Hydrolysis:		days		Fresh BCF:	8.7E+0		ECOTOX
Volatility:		days		Salt BCF:	5.0E+3		ECOTOX
Photolysis:		days					
Biodeg:		days					
Radio:	8.0E+3	days	SSG-Rad				
RIVER - Halflives				ENVIRONMENTAL			
Hydrolysis:		days		Fresh BCF:	1.7E+4		ECOTOX
Volatility:		days		Salt BCF:	5.0E+3		ECOTOX
Photolysis:		days					
Biodeg:		days					
Radio:	8.0E+3	days	SSG-Rad				
Log Kow:	7.3E-1						
			PHYSPROP				

Log Kow: 7.3E-1 PHYSPROP

CLASS INFORMATION			
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Class	Parent Substance
GW Mob:	007439-92-1
Other:	007439-92-1

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Lead 210(+D) (radionuclide)

CAS Number: 014255-04-0

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:		Water Solub:			
Gas Migration:		Distrib:	9.0E+2		
		Geo Mean Sol:	8.7E+2		
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-2		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E-2		

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	10000
Persistence		Persistence		Salt Tox:	10000
River:	1.0000	River:	1.0000	Persistence	
Lake:	1.0000	Lake:	1.0000	River:	1.0000
		Bioaccumulation		Lake:	1.0000
		Fresh:	5.0	Bioaccumulation	
		Salt:	5000.0	Fresh:	50000.0
				Salt:	5000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
Cancer Risk:		mg/m ³	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m ³	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	3.4E-4	pCi/m ³
									DW:	3.7E-2	pCi/L
									FC:	5.1E-1	pCi/kg
									Soil Ing:	3.0E+2	pCi/kg
									Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Lead chromate

CAS Number: 007758-97-6

TOXICITY		PHYSICAL CHARACTERISTICS	
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	3.2E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	6.1E+0	g/mL @ C	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg					
Oral LD50:		mg/kg					
Dermal LD50:		ppm					
Gas Inhal LC50:		mg/L					
Dust Inhal LC50:							
ACUTE							
Fresh CMC:		μg/L					
Salt CMC:		μg/L					
CHRONIC							
Fresh CCC:		μg/L					
Salt CCC:		μg/L					
Fresh Ecol LC50:		μg/L					
Salt Ecol LC50:		μg/L					

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives				FOOD CHAIN			
Hydrolysis:		days		Fresh BCF:			
Volatility:		days		Salt BCF:			
Photolysis:		days					
Biodeg:		days					
Radio:		days					
RIVER - Halflives				ENVIRONMENTAL			
Hydrolysis:		days		Fresh BCF:			
Volatility:		days		Salt BCF:			
Photolysis:		days					
Biodeg:		days					
Radio:		days		Log Kow:			
Log Kow:				Water Solub:			
				Geo Mean Sol:	1.7E-1	mg/L	CALC

OTHER DATA			
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Melting Point:	8.4E+2	C
Boiling Point:		
Formula:	Pb Cr O4	

CLASS INFORMATION	
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Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Lead chromate

CAS Number: 007758-97-6

ASSIGNED FACTOR VALUES

AIR PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Gas Mobility:	
Gas Migration:	

GROUND WATER PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Water Solub:	
Distrib:	
Geo Mean Sol:	1.7E-1
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	
Non Liq. Karst:	2.0E-3
Non Karst:	

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

HUMAN FOOD CHAIN

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	0
Salt Tox:	0

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

BENCHMARKS

AIR PATHWAY

<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:	
Cancer Risk:	
Non Cancer Risk:	

GROUND WATER PATHWAY

<u>Parameter</u>	<u>Value</u>
Unit	
µg/m ³	MCL/MCLG:
mg/m ³	Cancer Risk:
mg/m ³	Non Cancer Risk:

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Unit	
mg/L	Cancer Risk:
mg/L	Non Cancer Risk:

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m ³
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	
Cancer Risk:	
Non Cancer Risk:	

HUMAN FOOD CHAIN

<u>Parameter</u>	<u>Value</u>
Unit	
mg/L	FDAL:
mg/L	Cancer Risk:
mg/L	Non Cancer Risk:

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:		µg/L
Salt CMC:		µg/L
CHRONIC		
Fresh CCC:		µg/L
Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Lindane

CAS Number: 000058-89-9

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-4	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
Oral Slope:	1.3E+0	(mg/kg/day)^-1	HEAST
Oral Wt-of-Evid:	B2		
Inhal Slope:		(mg/kg/day)^-1	
Inhal Wt-of-Evid:			
Oral ED10:	1.4E-1	mg/kg/day	EPA_ED10
Oral ED10 Wgt:			
Inhal ED10:	1.4E-1	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:			
Oral LD50:	8.8E+1	mg/kg	ACGIH
Dermal LD50:	3.0E+2	mg/kg	ACGIH
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	

ACUTE			
Fresh CMC:	9.5E-1	K _G	μg/L
Salt CMC:	1.6E-1		μg/L
CHRONIC			
Fresh CCC:			μg/L
Salt CCC:			μg/L
Fresh Ecol LC50:	7.0E-1	μg/L	ECOTOX
Salt Ecol LC50:	1.3E-1	μg/L	ECOTOX

PERSISTENCE			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:	2.1E+2	days	CHEMFATE
Volatility:	1.5E+2	days	THOMAS
Photolysis:		days	
Biodeg:	4.1E+2	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:	2.1E+2	days	CHEMFATE
Volatility:	4.6E+0	days	THOMAS
Photolysis:		days	
Biodeg:	4.1E+2	days	FATERATE
Radio:		days	
Log Kow:	3.6E+0		CHEMFATE

CLASS INFORMATION			
<u>Class</u>	<u>Parent Substance</u>		

PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source
Metal Contain:	No		
Organic:	Yes		
Gas:	Yes		
Particulate:	Yes		
Radionuclide:	No		
Rad. Element:	No		
Molecular Weight:	2.9E+2		
Density:		g/mL @ C	

MOBILITY			
Parameter	Value	Unit	Source
Vapor Press:	4.1E-4	Torr	CHEMFATE
Henry's Law:	1.4E-5	atm-m ³ /mol	CHEMFATE
Water Solub:	7.3E+0	mg/L	CHEMFATE
Distrib Coef:	2.1E+0	ml/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:	2.9E+5		ECOTOX
Salt BCF:	1.2E+3		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	2.9E+5		ECOTOX
Salt BCF:	1.2E+3		ECOTOX
Log Kow:	3.6E+0		CHEMFATE
Water Solub:	7.3E+0		CHEMFATE
Geo Mean Sol:		mg/L	

OTHER DATA			
Melting Point:	1.1E+2	C	
Boiling Point:	3.2E+2	C	
Formula:	C ₆ H ₆ Cl ₆		

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Lindane

CAS Number: 000058-89-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	10000
Gas Mobility:	0.0200
Gas Migration:	11

Parameter	Value
Toxicity:	10000
Water Solub:	7.3E+0
Distrib:	2.1E+0
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	2.0E-1
Non Karst:	2.0E-1

Parameter	Value
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	10000

Parameter	Value
Toxicity:	10000

Parameter	Value
Fresh Tox:	10000
Salt Tox:	10000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	50000.0
Salt:	5000.0

Bioaccumulation	
Fresh:	50000.0
Salt:	5000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter	Value	Unit
NAAQS/NESHAPS:		
Cancer Risk:		
Non Cancer Risk:		

Parameter	Value	Unit
MCL/MCLG:	2.0E-4	µg/m3
Cancer Risk:	6.6E-5	mg/m3
Non Cancer Risk:	1.1E-2	mg/m3

Parameter	Value	Unit
Cancer Risk:	4.9E-1	mg/L
Non Cancer Risk:	2.3E+1	mg/L

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m3
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit
MCL/MCLG:	2.0E-4	mg/L
Cancer Risk:	6.6E-5	mg/L
Non Cancer Risk:	1.1E-2	mg/L

Parameter	Value	Unit
FDAAL:		ppm
Cancer Risk:	2.4E-3	mg/kg

Parameter	Value	Unit
ACUTE		
Fresh CMC:	9.5E-1	K
Salt CMC:	1.6E-1	G

CHRONIC		
Fresh CCC:		µg/L
Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Manganese

CAS Number: 007439-96-5

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	1.4E-1	mg/kg/day	IRIS	Metal Contain:	Yes		
Inhal RfD:	1.4E-5	mg/kg/day	IRIS	Organic:	No		
Oral Slope:		(mg/kg/day)^-1		Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	5.5E+1		
Oral ED10 Wgt:				Density:	7.3E+0	g/mL @ C	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:	1.9E+0	mg/L	RTECS				
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:		µg/L					
Salt Ecol LC50:		µg/L					
PERSISTENCE							
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		FRESH BCF:			
Volatility:		days		Salt BCF:	2.5E+4		ECOTOX
Photolysis:		days					
Biodeg:		days					
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days		Log Kow:	2.3E-1		PHYSPROP
Volatility:		days		Water Solub:			
Photolysis:		days		Geo Mean Sol:	1.1E+3	mg/L	CALC
Biodeg:		days					
Radio:		days					
Log Kow:	2.3E-1		PHYSPROP				
CLASS INFORMATION							
		Class			Parent Substance		

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Manganese

CAS Number: 007439-96-5

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Gas Mobility:	
Gas Migration:	

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Water Solub:	
Distrib:	6.5E+1
Geo Mean Sol:	1.1E+3
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E-2

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	0
Salt Tox:	0

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		<u>µg/m³</u>
Cancer Risk:		<u>mg/m³</u>
Non Cancer Risk:	5.2E-5	<u>mg/m³</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>MCL/MCLG:</u>
Cancer Risk:		<u>mg/L</u>
Non Cancer Risk:	5.1E+0	<u>mg/L</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Cancer Risk:		<u>mg/L</u>
Non Cancer Risk:	1.1E+4	<u>mg/kg</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL:		<u>pCi/L</u>
UMTRCA:		<u>pCi/kg</u>
CANCER RISK		
Air:		<u>pCi/m³</u>
DW:		<u>pCi/L</u>
FC:		<u>pCi/kg</u>
Soil Ing:		<u>pCi/kg</u>
Soil Gam:		<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>mg/L</u>
Cancer Risk:		<u>mg/L</u>
Non Cancer Risk:	5.1E+0	<u>mg/L</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
FDAAL:		<u>ppm</u>
Cancer Risk:		<u>mg/kg</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:		<u>µg/L</u>

CHRONIC		
Fresh CCC:		<u>µg/L</u>
Salt CCC:		<u>µg/L</u>

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Manganese 54 (radionuclide)

CAS Number: 013966-31-9

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:	Food: 3.11E-12 Soil: 5.14E-12 Water: 2.28E-12	(pCi) ⁻¹	HEAST	Gas:	No		
Oral Wt-of-Evid:	A			Particulate:	Yes		
Inhal Slope:	5.9E-12	(pCi) ⁻¹	HEAST	Radionuclide:	Yes		
Inhal Wt-of-Evid:	A			Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	5.4E+1		
Oral ED10 Wgt:		mg/kg/day		Density:	7.2E+0	g/mL @	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L		Parameter	Value	Unit	Source
Salt CMC:		µg/L		Vapor Press:		Torr	
CHRONIC							
Fresh CCC:		µg/L		Henry's Law:		atm-m ³ /mol	
Salt CCC:		µg/L		Water Solub:		mg/L	
Fresh Ecol LC50:		µg/L		Distrib Coef:	6.5E+1	ml/g	BAES_KD
Salt Ecol LC50:		µg/L		Geo Mean Sol:	1.1E+3	mg/L	CALC
PERSISTENCE							
Parameter	Value	Unit	Source	BIOACCUMULATION			
LAKE - Halflives				Parameter	Value	Unit	Source
Hydrolysis:		days		FOOD CHAIN			
Volatility:		days		Fresh BCF:			
Photolysis:		days		Salt BCF:	2.5E+4		ECOTOX
Biodeg:		days					
Radio:	3.3E+2	days	SSG-Rad				
RIVER - Halflives				ENVIRONMENTAL			
Hydrolysis:		days		Fresh BCF:			
Volatility:		days		Salt BCF:	2.5E+4		ECOTOX
Photolysis:		days					
Biodeg:		days					
Radio:	3.3E+2	days	SSG-Rad				
Log Kow:	2.3E-1		PHYSPROP	OTHER DATA			
				Melting Point:	1.2E+3	C	
			PHYSPROP	Boiling Point:	2.0E+3	C	
				Formula:	Mn-54		

CLASS INFORMATION

Class	Parent Substance
GW Mob:	007439-96-5
Other:	007439-96-5

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Manganese 54 (radionuclide)

CAS Number: 013966-31-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000
Gas Mobility:	
Gas Migration:	

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000
Water Solub:	
Distrib:	6.5E+1
Geo Mean Sol:	1.1E+3
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E-2

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	1000
Salt Tox:	1000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		$\mu\text{g}/\text{m}^3$
Cancer Risk:		mg/m^3
Non Cancer Risk:		mg/m^3

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		MCL/MCLG:
Cancer Risk:		mg/L
Non Cancer Risk:		mg/L

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL:	3.0E+2	pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:	8.1E-1	pCi/m^3
DW:	2.1E+1	pCi/L
FC:	5.7E+2	pCi/kg
Soil Ing:	1.5E+5	pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L
Cancer Risk:		mg/L
Non Cancer Risk:		mg/L

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
FDAAL:		ppm
Cancer Risk:		mg/kg
Non Cancer Risk:		mg/kg

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:		$\mu\text{g}/\text{L}$
Salt CMC:		$\mu\text{g}/\text{L}$
CHRONIC		
Fresh CCC:		$\mu\text{g}/\text{L}$
Salt CCC:		$\mu\text{g}/\text{L}$

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Mercury

CAS Number: 007439-97-6

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	3.0E-4	mg/kg/day	IRIS	Metal Contain:	Yes		
Inhal RfD:	8.6E-5	mg/kg/day	IRIS	Organic:	No		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	2.0E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	1.4E+1	g/mL @ 20.00 C	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:	1.4E+0	D, K, hh	µg/L	WATCRIT			
Salt CMC:	1.8E+0	D, ee, hh	µg/L	WATCRIT			
CHRONIC							
Fresh CCC:	7.7E-1	D, K, hh	µg/L	WATCRIT			
Salt CCC:	9.4E-1	D, ee, hh	µg/L	WATCRIT			
Fresh Ecol LC50:	4.8E+0	µg/L		ECOTOX			
Salt Ecol LC50:	2.0E+0	µg/L		ECOTOX			
PERSISTENCE							
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:		days					
Log Kow:	6.2E-1			PHYSPROP			
CLASS INFORMATION							
		Class		Parent Substance			

MOBILITY			
Parameter	Value	Unit	Source
Vapor Press:	2.0E-3	Torr	CHEMFATE
Henry's Law:	1.1E-2	atm-m3/mol	LIVECHEM
Water Solub:		mg/L	
Distrib Coef:	5.2E+1	ml/g	SSG_KD
Geo Mean Sol:	4.5E+2	mg/L	CALC

BIOACCUMULATION			
Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:	8.6E+4		VER_BCF
Salt BCF:	1.8E+4		ECOTOX

ENVIRONMENTAL			
Parameter	Value	Unit	Source
Fresh BCF:	2.7E+4		ECOTOX
Salt BCF:	7.0E+5		ECOTOX
Log Kow:	6.2E-1		PHYSPROP
Water Solub:			
Geo Mean Sol:	4.5E+2	mg/L	CALC

OTHER DATA			
Parameter	Value	Unit	Source
Melting Point:	-3.9E+1	C	
Boiling Point:	3.6E+2	C	
Formula:	Hg		

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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Date: 1/28/2004
Chemical: Mercury

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 007439-97-6

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:	0.2000	Water Solub:			
Gas Migration:	17	Distrib:	5.2E+1		
		Geo Mean Sol:	4.5E+2		
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-2		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E-2		

SURFACE WATER PATHWAY					
DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	10000
Persistence		Persistence		Salt Tox:	10000
River:	1.0000	River:	1.0000		
Lake:	1.0000	Lake:	1.0000		
		Bioaccumulation		Bioaccumulation	
		Fresh:	50000.0	Fresh:	50000.0
		Salt:	50000.0	Salt:	50000.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIOMUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		$\mu\text{g}/\text{m}^3$	MCL/MCLG:	2.0E-3	mg/L	Cancer Risk:	
Cancer Risk:		mg/m^3	Cancer Risk:		mg/L	Non Cancer Risk:	2.3E+1
Non Cancer Risk:	3.1E-4	mg/m^3	Non Cancer Risk:	1.1E-2	mg/L		
						MCL:	
						UMTRCA:	
						CANCER RISK	
						Air:	pCi/m^3
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:	2.0E-3	mg/L	FDAAL:	1.0E+0	ppm
Cancer Risk:		mg/L	Cancer Risk:		mg/kg
Non Cancer Risk:	1.1E-2	mg/L	Non Cancer Risk:	4.1E-1	mg/kg
					ACUTE
					Fresh CMC: 1.4E+0 D, K, hh
					Salt CMC: 1.8E+0 D, ee, hh
					CHRONIC
					Fresh CCC: 7.7E-1 D, K, hh
					Salt CCC: 9.4E-1 D, ee, hh

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Methoxychlor

CAS Number: 000072-43-5

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	5.0E-3	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	3.5E+2		
Oral ED10 Wgt:				Density:	1.4E+0	g/mL @ 25.00 C	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	1.9E+3	mg/kg	ACGIH				
Dermal LD50:	6.0E+3	mg/kg	RTECS				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE				MOBILITY			
Fresh CMC:		µg/L		Parameter	Value	Unit	Source
Salt CMC:		µg/L		Vapor Press:	6.0E-7	Torr	CHEMFATE
				Henry's Law:	1.6E-5	atm-m3/mol	CHEMFATE
				Water Solub:	4.5E-2	mg/L	LIVECHEM
				Distrib Coef:	1.5E+4	ml/g	DITOR_KD
				Geo Mean Sol:		mg/L	
CHRONIC				BIOACCUMULATION			
Fresh CCC:	3.0E-2	F2	µg/L	Parameter	Value	Unit	Source
Salt CCC:	3.0E-2	F2	µg/L	FOOD CHAIN			
				Fresh BCF:	3.0E+0		ECOTOX
				Salt BCF:	1.2E+4		ECOTOX
Fresh Ecol LC50:	8.5E-2	µg/L	ECOTOX				
Salt Ecol LC50:	2.1E-1	µg/L	ECOTOX				
PERSISTENCE				ENVIRONMENTAL			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives				Fresh BCF:	8.6E+3		ECOTOX
Hydrolysis:	3.8E+2	days	FATERATE	Salt BCF:	1.2E+4		ECOTOX
Volatility:	1.7E+2	days	THOMAS	Log Kow:	4.8E+0		CHEMFATE
Photolysis:	1.4E+2	days	CHEMFATE	Water Solub:	4.5E-2		LIVECHEM
Biodeg:	3.7E+2	days	FATERATE	Geo Mean Sol:		mg/L	
Radio:		days					
RIVER - Halflives							
Hydrolysis:	3.8E+2	days	FATERATE				
Volatility:	4.6E+0	days	THOMAS	Melting Point:	8.7E+1	C	
Photolysis:	1.4E+2	days	CHEMFATE	Boiling Point:		C	
Biodeg:	3.7E+2	days	FATERATE	Formula:	C16 H15 Cl3 O2		
Radio:		days					
Log Kow:	4.8E+0		CHEMFATE				
CLASS INFORMATION							
Class	Parent Substance						

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Methoxychlor

CAS Number: 000072-43-5

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter	Value
Toxicity:	100
Gas Mobility:	0.0020
Gas Migration:	6

GROUND WATER PATHWAY

Parameter	Value
Toxicity:	100
Water Solub:	4.5E-2
Distrib:	1.5E+4
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	2.0E-3
Non Karst:	2.0E-7

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter	Value
Toxicity:	100

HUMAN FOOD CHAIN

Parameter	Value
Toxicity:	100

ENVIRONMENTAL

Parameter	Value
Fresh Tox:	10000
Salt Tox:	10000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	5.0
Salt:	50000.0

Bioaccumulation	
Fresh:	5000.0
Salt:	50000.0

BENCHMARKS

AIR PATHWAY

Parameter	Value
NAAQS/NESHAPS:	$\mu\text{g}/\text{m}^3$
Cancer Risk:	mg/m ³
Non Cancer Risk:	mg/m ³

GROUND WATER PATHWAY

Parameter	Value
MCL/MCLG:	4.0E-2
Cancer Risk:	mg/L
Non Cancer Risk:	1.8E-1

SOIL EXPOSURE PATHWAY

Parameter	Value
Cancer Risk:	mg/kg
Non Cancer Risk:	3.9E+2

RADIONUCLIDE

Parameter	Value
MCL:	pCi/L
UMTRCA:	pCi/kg
CANCER RISK	
Air:	pCi/m ³
DW:	pCi/L
FC:	pCi/kg
Soil Ing:	pCi/kg
Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter	Value
MCL/MCLG:	4.0E-2
Cancer Risk:	mg/L
Non Cancer Risk:	1.8E-1

HUMAN FOOD CHAIN

Parameter	Value
FDAAL:	ppm
Cancer Risk:	mg/kg
Non Cancer Risk:	6.8E+0

ENVIRONMENTAL

Parameter	Value
ACUTE	
Fresh CMC:	$\mu\text{g}/\text{L}$
Salt CMC:	$\mu\text{g}/\text{L}$
CHRONIC	
Fresh CCC:	$3.0\text{E-}2^{F2}$
Salt CCC:	$3.0\text{E-}2^{F2}$

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Methyl Parathion

CAS Number: 000298-00-0

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	2.5E-4	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	2.6E+2		
Oral ED10 Wgt:				Density:	1.4E+0	g/mL @ 20.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	9.0E+0	mg/kg	ACGIH				
Dermal LD50:	6.7E+1	mg/kg	ACGIH				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:	1.0E+2	mg/L	RTECS				
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	1.3E-4	µg/L	ECOTOX				
Salt Ecol LC50:	1.7E-1	µg/L	ECOTOX				
PERSISTENCE							
Parameter	Value	Unit	Source				
LAKE - Halflives							
Hydrolysis:	7.2E+1	days	CHEMFATE				
Volatility:	5.7E+2	days	THOMAS				
Photolysis:	3.8E+1	days	FATERATE				
Biodeg:	6.3E+0	days	CHEMFATE				
Radio:		days					
RIVER - Halflives							
Hydrolysis:	7.2E+1	days	CHEMFATE				
Volatility:	4.0E+2	days	THOMAS				
Photolysis:	3.8E+1	days	FATERATE				
Biodeg:	6.3E+0	days	CHEMFATE				
Log Kow:	2.9E+0		CHEMFATE				
CLASS INFORMATION							
Class				Parent Substance			

REFERENCE 2

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Date: 1/28/2004
 Chemical: Methyl Parathion

CAS Number: 000298-00-0

SUPERFUND CHEMICAL DATA MATRIX

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:	0.0200	Water Solub:	5.5E+1		
Gas Migration:	6	Distrib:	9.9E+1		
		Geo Mean Sol:			
		Mobility:			
Liquid	Karst:	1.0E+0			
	Non Karst:	1.0E-2			
Non Liq.	Karst:	2.0E-1			
	Non Karst:	2.0E-3			

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	10000
				Salt Tox:	10000
Persistence		Persistence		Persistence	
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	0.4000	Lake:	0.4000	Lake:	0.4000
		Bioaccumulation		Bioaccumulation	
		Fresh:	50.0	Fresh:	50.0
		Salt:	50.0	Salt:	50.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		<u>µg/m³</u>	MCL/MCLG:		<u>mg/L</u>	Cancer Risk:	
Cancer Risk:		<u>mg/m³</u>	Cancer Risk:		<u>mg/L</u>	Non Cancer Risk:	2.0E+1
Non Cancer Risk:		<u>mg/m³</u>	Non Cancer Risk:	9.1E-3	<u>mg/L</u>		
						CANCER RISK	
						Air:	<u>pCi/m³</u>
						DW:	<u>pCi/L</u>
						FC:	<u>pCi/kg</u>
						Soil Ing:	<u>pCi/kg</u>
						Soil Gam:	<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>mg/L</u>	FDAAL:		<u>ppm</u>
Cancer Risk:		<u>mg/L</u>	Cancer Risk:		<u>mg/kg</u>
Non Cancer Risk:	9.1E-3	<u>mg/L</u>	Non Cancer Risk:	3.4E-1	<u>mg/kg</u>
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Methyl ethyl ketone

CAS Number: 000078-93-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	6.0E-1	mg/kg/day	IRIS
Inhal RfD:	1.4E+0	mg/kg/day	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:		(mg/kg/day)^-1	
Inhal Slope:		(mg/kg/day)^-1	
Inhal Wt-of-Evid:		(mg/kg/day)^-1	
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:	5.5E+3	mg/kg	ACGIH
Dermal LD50:	6.5E+3	mg/kg	RTECS
Gas Inhal LC50:		ppm	
Dust Inhal LC50:	2.7E+4	mg/L	RTECS

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L

Fresh Ecol LC50:	5.2E+5	μg/L	ECOTOX
Salt Ecol LC50:	4.0E+5	μg/L	ECOTOX

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>
Metal Contain:	No
Organic:	Yes
Gas:	Yes
Particulate:	No
Radionuclide:	No
Rad. Element:	No
Molecular Weight:	7.2E+1
Density:	8.0E-1 g/mL @ 25.00 C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	9.5E+1	Torr	CHEMFATE
Henry's Law:	5.6E-5	atm-m3/mol	CHEMFATE
Water Solub:	2.2E+5	mg/L	CHEMFATE
Distrib Coef:	2.9E-1	ml/g	DITOR_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			

Fresh BCF:	
Salt BCF:	

ENVIRONMENTAL

Fresh BCF:		
Salt BCF:		
Log Kow:	2.9E-1	CHEMFATE
Water Solub:	2.2E+5	CHEMFATE
Geo Mean Sol:	mg/L	

OTHER DATA

Melting Point:	-8.7E+1	C
Boiling Point:	8.0E+1	C
Formula:	C4 H8 O	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:	1.8E+4	days	FATERATE
Volatility:	7.5E+1	days	THOMAS
Photolysis:		days	
Biodeg:	7.0E+0	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:	1.8E+4	days	FATERATE
Volatility:	1.2E+0	days	THOMAS
Photolysis:		days	
Biodeg:	7.0E+0	days	FATERATE
Radio:		days	
Log Kow:	2.9E-1		CHEMFATE

CLASS INFORMATION

<u>Class</u>	<u>Parent Substance</u>
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REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Methyl ethyl ketone

CAS Number: 000078-93-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	1
Gas Mobility:	1.0000
Gas Migration:	17

<u>Parameter</u>	<u>Value</u>
Toxicity:	1
Water Solub:	2.2E+5
Distrib:	2.9E-1
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E+0

<u>Parameter</u>	<u>Value</u>
Toxicity:	1

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	1

<u>Parameter</u>	<u>Value</u>
Toxicity:	1

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	1
Salt Tox:	1

Persistence	
River:	0.4000
Lake:	0.4000

Persistence	
River:	0.4000
Lake:	0.4000

Persistence	
River:	0.4000
Lake:	0.4000

Bioaccumulation	
Fresh:	0.5
Salt:	0.5

Bioaccumulation	
Fresh:	0.5
Salt:	0.5

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		<u>µg/m³</u>
Cancer Risk:		<u>mg/m³</u>
Non Cancer Risk:	5.2E+0	<u>mg/m³</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>MCL/MCLG:</u>
Cancer Risk:		<u>mg/L</u>
Non Cancer Risk:	2.2E+1	<u>mg/L</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Cancer Risk:		<u>mg/L</u>
Non Cancer Risk:	4.7E+4	<u>mg/kg</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL:		<u>pCi/L</u>
UMTRCA:		<u>pCi/kg</u>
CANCER RISK		
Air:		<u>pCi/m³</u>
DW:		<u>pCi/L</u>
FC:		<u>pCi/kg</u>
Soil Ing:		<u>pCi/kg</u>
Soil Garn:		<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>mg/L</u>
Cancer Risk:		<u>mg/L</u>
Non Cancer Risk:	2.2E+1	<u>mg/L</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
FDAAL:		<u>ppm</u>
Cancer Risk:		<u>mg/kg</u>
Non Cancer Risk:	8.1E+2	<u>mg/kg</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:		<u>µg/L</u>

<u>CHRONIC</u>	
Fresh CCC:	
Salt CCC:	

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Methyl isobutyl ketone

CAS Number: 000108-10-1

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	8.0E-2	mg/kg/day	HEAST	Metal Contain:	No		
Inhal RfD:	8.6E-1	mg/kg/day	IRIS	Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	No		
Inhal Slope:		(mg/kg/day)^-1		Radiouclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.0E+2		
Oral ED10 Wgt:				Density:	8.0E-1	g/mL @ 25.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	2.1E+3	mg/kg	ACGIH				
Dermal LD50:	3.0E+3	mg/kg	RTECS				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:	8.3E+4	mg/L	RTECS				
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	4.6E+5	µg/L	ECOTOX				
Salt Ecol LC50:	1.2E+6	µg/L	ECOTOX				
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days					
Volatility:	8.8E+1	days	THOMAS				
Photolysis:		days					
Biodeg:	7.0E+0	days	FATERATE				
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	1.1E+0	days	THOMAS				
Photolysis:		days					
Biodeg:	7.0E+0	days	FATERATE				
Radio:		days					
Log Kow:	1.2E+0		CHEMFATE				
CLASS INFORMATION							
Class	Parent Substance						

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Methyl isobutyl ketone

CAS Number: 000108-10-1

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10	Toxicity:	10	Toxicity:	10
Gas Mobility:	1.0000	Water Solub:	1.9E+4		
Gas Migration:	17	Distrib:	2.2E+0		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10	Toxicity:	10	Fresh Tox:	1
				Salt Tox:	1
Persistence		Persistence		Persistence	
River:	0.4000	River:	0.4000	River:	0.4000
Lake:	0.4000	Lake:	0.4000	Lake:	0.4000
		Bioaccumulation		Bioaccumulation	
		Fresh:	5.0	Fresh:	5.0
		Salt:	5.0	Salt:	5.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIOMUCLIDE	
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value
NAAQS/NESHAPS:		µg/m³	MCL/MCLG:		mg/L	Cancer Risk:	
Cancer Risk:		mg/m³	Cancer Risk:		mg/L	Non Cancer Risk:	6.3E+3
Non Cancer Risk:	3.1E+0	mg/m³	Non Cancer Risk:	2.9E+0	mg/L		
						Unit	
						MCL:	pCi/L
						UMTRCA:	pCi/kg
						CANCER RISK	
						Air:	pCi/m³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAL:		ppm
Cancer Risk:		mg/L	Cancer Risk:		mg/kg
Non Cancer Risk:	2.9E+0	mg/L	Non Cancer Risk:	1.1E+2	mg/kg
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:
					µg/L
					µg/L

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Methyl phenol, 4-

CAS Number: 000106-44-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	5.0E-3	mg/kg/day	HEAST
Inhal RfD:		mg/kg/day	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Inhal Wt-of-Evid:			
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:	1.8E+3	mg/kg	ACGIH
Dermal LD50:	3.0E+2	mg/kg	RTECS
Gas Inhal LC50:		ppm	
Dust Inhal LC50:	5.9E+2	mg/L	RTECS

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L

Fresh Ecol LC50:	1.4E+3	μg/L	ECOTOX
Salt Ecol LC50:		μg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	1.2E+2	days	THOMAS
Photolysis:	8.1E-4	days	CHEMFATE
Biodeg:	6.7E-1	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:	2.6E+1	days	THOMAS
Photolysis:	8.1E-4	days	CHEMFATE
Biodeg:	6.7E-1	days	FATERATE
Radio:		days	
Log Kow:	1.9E+0		CHEMFATE

Log Kow: 1.9E+0

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>
Metal Contain:	No
Organic:	Yes
Gas:	Yes
Particulate:	No
Radionuclide:	No
Rad. Element:	No
Molecular Weight:	1.1E+2
Density:	1.0E+0 g/mL @ 40.00 C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.1E-1	Torr	CHEMFATE
Henry's Law:	7.9E-7	atm-m3/mol	CHEMFATE
Water Solub:	2.2E+4	mg/L	CHEMFATE
Distrib Coef:	1.2E+1	ml/g	DITOR_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:			
Salt BCF:			
Log Kow:	1.9E+0		CHEMFATE
Water Solub:	2.2E+4		CHEMFATE
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	3.6E+1	C
Boiling Point:	2.0E+2	C
Formula:	C7 H8 O	

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Methyl phenol, 4-

CAS Number: 000106-44-5

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter	Value
Toxicity:	100
Gas Mobility:	1.0000
Gas Migration:	11

GROUND WATER PATHWAY

Parameter	Value
Toxicity:	100
Water Solub:	2.2E+4
Distrib:	1.2E+1
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E-2

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter	Value
Toxicity:	100

HUMAN FOOD CHAIN

Parameter	Value
Toxicity:	100

ENVIRONMENTAL

Parameter	Value
Fresh Tox:	100
Salt Tox:	100

Persistence	
River:	0.0007
Lake:	0.0007

Persistence	
River:	0.0007
Lake:	0.0007

Persistence	
River:	0.0007
Lake:	0.0007

Bioaccumulation

Fresh:	5.0
Salt:	5.0

Bioaccumulation

Fresh:	5.0
Salt:	5.0

BENCHMARKS

AIR PATHWAY

Parameter	Value
NAAQS/NESHAPS:	$\mu\text{g}/\text{m}^3$
Cancer Risk:	mg/m ³
Non Cancer Risk:	mg/m ³

GROUND WATER PATHWAY

Parameter	Value
MCL/MCLG:	mg/L
Cancer Risk:	mg/L
Non Cancer Risk:	mg/L

SOIL EXPOSURE PATHWAY

Parameter	Value
Cancer Risk:	mg/kg
Non Cancer Risk:	3.9E+2
mg/L	

RADIONUCLIDE

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m ³
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gnm:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter	Value
MCL/MCLG:	mg/L
Cancer Risk:	mg/L
Non Cancer Risk:	1.8E-1

HUMAN FOOD CHAIN

Parameter	Value
FDAAL:	ppm
Cancer Risk:	mg/kg
Non Cancer Risk:	6.8E+0
mg/kg	

ENVIRONMENTAL

Parameter	Value	Unit
ACUTE		
Fresh CMC:		$\mu\text{g}/\text{L}$
Salt CMC:		$\mu\text{g}/\text{L}$
CHRONIC		
Fresh CCC:		$\mu\text{g}/\text{L}$
Salt CCC:		$\mu\text{g}/\text{L}$

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Methyl tert-butyl ether (MTBE)

CAS Number: 001634-04-4

TOXICITY				PHYSICAL CHARACTERISTICS			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>		
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:	8.6E-1	mg/kg/day	IRIS	Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	No		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	8.8E+1		
Oral ED10 Wgt:		mg/kg/day		Density:	7.4E-1	g/mL @ 20.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:	3.0E+3	mg/kg	ACGIH				
Dermal LD50:	1.0E+0	mg/kg	ACGIH				
Gas Inhal LC50:	2.4E+4	ppm	ACGIH				
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L		MOBILITY			
Salt CMC:		µg/L		<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
CHRONIC				Vapor Press:	2.5E+2	Torr	CHEMFATE
Fresh CCC:		µg/L		Henry's Law:	5.9E-4	atm-m ³ /mol	CHEMFATE
Salt CCC:		µg/L		Water Solub:	5.1E+4	mg/L	CHEMFATE
Fresh Ecol LC50:	6.7E+5	µg/L	ECOTOX	Distrib Coef:	8.9E+0	ml/g	DITOR_KD
Salt Ecol LC50:	1.0E+6	µg/L	ECOTOX	Geo Mean Sol:		mg/L	
PERSISTENCE							
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	BIOACCUMULATION			
LAKE - Halflives							
Hydrolysis:		days		<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Volatility:	8.3E+1	days	THOMAS	FOOD CHAIN			
Photolysis:		days		Fresh BCF:			
Biodeg:	1.8E+2	days	FATERATE	Salt BCF:			
Radio:		days		ENVIRONMENTAL			
RIVER - Halflives							
Hydrolysis:		days		Log Kow:	1.2E+0		CHEMFATE
Volatility:	9.3E-1	days	THOMAS	Water Solub:	5.1E+4		CHEMFATE
Photolysis:		days		Geo Mean Sol:		mg/L	
Biodeg:	1.8E+2	days	FATERATE	OTHER DATA			
Radio:		days		Melting Point:	-1.1E+2	C	
Log Kow:	1.2E+0		CHEMFATE	Boiling Point:	5.5E+1	C	
				Formula:	C ₅ H ₁₂ O		
CLASS INFORMATION							
		<u>Class</u>			<u>Parent Substance</u>		

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Methyl tert-butyl ether (MTBE)

CAS Number: 001634-04-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	1
Gas Mobility:	1.0000
Gas Migration:	17

<u>Parameter</u>	<u>Value</u>
Toxicity:	1
Water Solub:	5.1E+4
Distrib:	8.9E+0
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E+0

<u>Parameter</u>	<u>Value</u>
Toxicity:	1

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	1

<u>Parameter</u>	<u>Value</u>
Toxicity:	1

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	1
Salt Tox:	1

Persistence	
River:	0.4000
Lake:	1.0000

Persistence	
River:	0.4000
Lake:	1.0000

Persistence	
River:	0.4000
Lake:	1.0000

Bioaccumulation	
Fresh:	5.0
Salt:	5.0

Bioaccumulation	
Fresh:	5.0
Salt:	5.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		<u>µg/m³</u>
Cancer Risk:		<u>mg/m³</u>
Non Cancer Risk:	3.1E+0	<u>mg/m³</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>MCL/MCLG:</u>
Cancer Risk:		<u>Cancer Risk:</u>
Non Cancer Risk:		<u>Non Cancer Risk:</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Cancer Risk:		<u>mg/L</u>
Non Cancer Risk:		<u>mg/L</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL:		<u>pCi/L</u>
UMTRCA:		<u>mg/kg</u>
CANCER RISK		
Air:		<u>pCi/m³</u>
DW:		<u>pCi/L</u>
FC:		<u>pCi/kg</u>
Soil Ing:		<u>pCi/kg</u>
Soil Gam:		<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>mg/L</u>
Cancer Risk:		<u>mg/L</u>
Non Cancer Risk:		<u>mg/L</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
FDAAL:		<u>ppm</u>
Cancer Risk:		<u>mg/kg</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:		<u>µg/L</u>

<u>CHRONIC</u>	
Fresh CCC:	
Salt CCC:	

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Methylene chloride (dichloromethane)

CAS Number: 000075-09-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	6.0E-2	mg/kg/day	IRIS
Inhal RfD:	8.6E-1	mg/kg/day	HEAST
Oral Slope:	7.5E-3	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	B2		
Inhal Slope:	1.6E-3	(mg/kg/day)^-1	IRIS
Inhal Wt-of-Evid:	B2		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:	2.0E+3	mg/kg	ACGIH
Dermal LD50:		mg/kg	
Gas Inhal LC50:	1.2E+4	ppm	ACGIH
Dust Inhal LC50:	7.3E+4	mg/L	RTECS

ACUTE

Fresh CMC:	$\mu\text{g/L}$
Salt CMC:	$\mu\text{g/L}$

CHRONIC

Fresh CCC:	$\mu\text{g/L}$
Salt CCC:	$\mu\text{g/L}$

FRESH ECOTOX

Fresh Ecol LC50:	1.4E+5	$\mu\text{g/L}$	ECOTOX
Salt Ecol LC50:	8.9E+4	$\mu\text{g/L}$	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:	2.6E+5	days	CHEMFATE
Volatility:	8.1E+1	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+1	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:	2.6E+5	days	CHEMFATE
Volatility:	8.8E-1	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+1	days	FATERATE
Radio:		days	
Log Kow:	1.3E+0		CHEMFATE

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>
Metal Contain:	No
Organic:	Yes
Gas:	Yes
Particulate:	No
Radiouclide:	No
Rad. Element:	No
Molecular Weight:	8.5E+1
Density:	1.3E+0 g/mL @ 20.00 C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.3E+2	Torr	CHEMFATE
Henry's Law:	2.2E-3	atm-m3/mol	CHEMFATE
Water Solub:	1.3E+4	mg/L	CHEMFATE
Distrib Coef:	2.4E-2	ml/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:	5.8E+2		ECOTOX
Salt BCF:			
Log Kow:	1.3E+0		CHEMFATE
Water Solub:	1.3E+4	mg/L	CHEMFATE
Geo Mean Sol:			

OTHER DATA

Melting Point:	-9.5E+1	C
Boiling Point:	4.0E+1	C
Formula:	C H2 Cl2	

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Methylene chloride (dichloromethane)

CAS Number: 000075-09-2

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10	Toxicity:	10	Toxicity:	10
Gas Mobility:	1.0000	Water Solub:	1.3E+4		
Gas Migration:	17	Distrib:	2.4E-2		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10	Toxicity:	10	Fresh Tox:	1
				Salt Tox:	10
Persistence		Persistence		Persistence	
River:	0.4000	River:	0.4000	River:	0.4000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	5.0	Fresh:	500.0
		Salt:	5.0	Salt:	500.0

BENCHMARKS

AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:	5.0E-3	mg/L	Cancer Risk:	8.5E+1	mg/kg	MCL:		pCi/L
Cancer Risk:	5.2E-3	mg/m ³	Cancer Risk:	1.1E-2	mg/L	Non Cancer Risk:	4.7E+3	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:	3.1E+0	mg/m ³	Non Cancer Risk:	2.2E+0	mg/L				CANCER RISK		
									Air:	pCi/m ³	
									DW:	pCi/L	
									FC:	pCi/kg	
									Soil Ing:	pCi/kg	
									Soil Gam:	pCi/kg	

SURFACE WATER PATHWAY

DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:	5.0E-3	mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:	1.1E-2	mg/L	Cancer Risk:	4.2E-1	mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:	2.2E+0	mg/L	Non Cancer Risk:	8.1E+1	mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Methylnaphthalene, 2-

CAS Number: 000091-57-6

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value		
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:		(mg/kg/day)^-1		Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.4E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	1.0E+0	g/mL @ 20.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg					
Oral LD50:		mg/kg					
Dermal LD50:		ppm					
Gas Inhal LC50:		mg/L					
Dust Inhal LC50:							
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	1.1E+3	µg/L	ECOTOX				
Salt Ecol LC50:	6.0E+2	µg/L	ECOTOX				
PERSISTENCE							
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days					
Volatility:	1.0E+2	days	THOMAS				
Photolysis:	2.3E+0	days	CHEMFATE				
Biodeg:		days					
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	1.2E+0	days	THOMAS				
Photolysis:	2.3E+0	days	CHEMFATE				
Biodeg:		days					
Radio:		days					
Log Kow:	3.9E+0		CHEMFATE				
CLASS INFORMATION							
		Class			Parent Substance		

REFERENCE 2

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Date: 1/28/2004
 Chemical: Methylnaphthalene, 2-

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000091-57-6

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	0
Gas Mobility:	0.2000
Gas Migration:	11

<u>Parameter</u>	<u>Value</u>
Toxicity:	0
Water Solub:	2.5E+1
Distrib:	9.5E+2
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	2.0E-1
Non Karst:	2.0E-3

<u>Parameter</u>	<u>Value</u>
Toxicity:	0

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	0

<u>Parameter</u>	<u>Value</u>
Toxicity:	0

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	100
Salt Tox:	1000

Persistence	
River:	0.4000
Lake:	0.4000

Persistence	
River:	0.4000
Lake:	0.4000

Persistence	
River:	0.4000
Lake:	0.4000

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:	µg/m ³
Cancer Risk:	mg/m ³
Non Cancer Risk:	mg/m ³

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	mg/L
Cancer Risk:	mg/L
Non Cancer Risk:	mg/L

<u>Parameter</u>	<u>Value</u>
Cancer Risk:	mg/kg
Non Cancer Risk:	mg/kg

<u>Parameter</u>	<u>Value</u>
MCL:	mg/kg
UMTRCA:	mg/kg
CANCER RISK	
Air:	pCi/m ³
DW:	pCi/L
FC:	pCi/kg
Soil Ing:	pCi/kg
Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	mg/L
Cancer Risk:	mg/L
Non Cancer Risk:	mg/L

<u>Parameter</u>	<u>Value</u>
FDAAL:	ppm
Cancer Risk:	mg/kg
Non Cancer Risk:	mg/kg

<u>Parameter</u>	<u>Value</u>
ACUTE	
Fresh CMC:	µg/L
Salt CMC:	µg/L

CHRONIC	
Fresh CCC:	µg/L
Salt CCC:	µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Naphthalene

CAS Number: 000091-20-3

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	4.0E-2	mg/kg/day	LIVECHEM	Metal Contain:	No		
Inhal RfD:	8.6E-4	mg/kg/day	IRIS	Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.3E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	1.0E+0	g/mL @ 20.00 C	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:	1.8E+3	mg/kg	ACGIH				
Dermal LD50:	2.5E+3	mg/kg	RTECS				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:	2.8E+2	mg/L	RTECS				
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	2.4E+2	µg/L	ECOTOX				
Salt Ecol LC50:	6.8E+2	µg/L	ECOTOX				
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days					
Volatility:	1.0E+2	days	THOMAS	Vapor Press:	8.5E-2	Torr	CHEMFATE
Photolysis:	3.0E+0	days	CHEMFATE	Henry's Law:	4.8E-4	atm-m3/mol	CHEMFATE
Biodeg:	2.3E+1	days	CHEMFATE	Water Solub:	3.1E+1	mg/L	CHEMFATE
Radio:		days		Distrib Coef:	3.0E+2	mL/g	DITOR_KD
RIVER - Halflives							
Hydrolysis:		days		Geo Mean Sol:		mg/L	
Volatility:	1.1E+0	days	THOMAS				
Photolysis:	3.0E+0	days	CHEMFATE				
Biodeg:	2.3E+1	days	CHEMFATE				
Radio:		days					
Log Kow:	3.3E+0		CHEMFATE				
CLASS INFORMATION							
Class	Parent Substance						

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Naphthalene

CAS Number: 000091-20-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter Value
 Toxicity: 1000
 Gas Mobility: 0.2000
 Gas Migration: 11

Parameter Value
 Toxicity: 1000
 Water Solub: 3.1E+1
 Distrib: 3.0E+2
 Geo Mean Sol:
 Mobility:
 Liquid Karst: 1.0E+0
 Non Karst: 1.0E-2
 Non Liq. Karst: 2.0E-1
 Non Karst: 2.0E-3

Parameter Value
 Toxicity: 1000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value
 Toxicity: 1000

Parameter Value
 Toxicity: 1000

Parameter Value
 Fresh Tox: 1000
 Salt Tox: 1000

Persistence
 River: 0.4000
 Lake: 0.4000

Persistence
 River: 0.4000
 Lake: 0.4000

Persistence
 River: 0.4000
 Lake: 0.4000

Bioaccumulation
 Fresh: 50000.0
 Salt: 5000.0

Bioaccumulation
 Fresh: 50000.0
 Salt: 5000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter Value
 NAAQS/NESHAPS:
 Cancer Risk:
 Non Cancer Risk: 3.1E-3

Unit Parameter Value
 µg/m³ MCL/MCLG:
 mg/m³ Cancer Risk:
 mg/m³ Non Cancer Risk: 1.5E+0

Unit Parameter Value
 mg/L Cancer Risk:
 mg/L Non Cancer Risk: 3.1E+3

Unit Parameter Value
 pCi/L MCL:
 pCi/kg UMTRCA:
 CANCER RISK
 Air: pCi/m³
 DW: pCi/L
 FC: pCi/kg
 Soil Ing: pCi/kg
 Soil Gam: pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value
 MCL/MCLG:
 Cancer Risk:
 Non Cancer Risk: 1.5E+0

Unit Parameter Value
 mg/L FDAAL:
 mg/L Cancer Risk:
 mg/L Non Cancer Risk: 5.4E+1

Parameter Value
 ACUTE Fresh CMC:
 mg/kg Salt CMC:

Unit
 µg/L
 µg/L
 µg/L
 µg/L

CHRONIC
 Fresh CCC:
 Salt CCC:

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Nickel

CAS Number: 007440-02-0

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	2.0E-2	mg/kg/day	IRIS	Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:		(mg/kg/day)^-1		Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radiouclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	5.9E+1		
Oral ED10 Wgt:				Density:	8.9E+0	g/mL @	C
Inhal ED10:	1.0E-1	mg/kg/day	SPHEM				
Inhal ED10 Wgt:	A						
Oral LD50:	5.0E+0	mg/kg	RTECS				
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE				MOBILITY			
Fresh CMC:	4.7E+2	D, E, K	WATCRIT	Parameter	Value	Unit	Source
Salt CMC:	7.4E+1	D, bb	WATCRIT	Vapor Press:		Torr	
		μg/L		Henry's Law:	2.5E-2	atm-m3/mol	PHYSPROP
		μg/L		Water Solub:		mg/L	
				Distrib Coef:	6.5E+1	ml/g	SSG_KD
				Geo Mean Sol:	1.5E+3	mg/L	CALC
CHRONIC				BIOACCUMULATION			
Fresh CCC:	5.2E+1	D, E, K	WATCRIT	Parameter	Value	Unit	Source
Salt CCC:	8.2E+0	D, bb	WATCRIT	FOOD CHAIN			
		μg/L		Fresh BCF:	8.0E-1		VER_BCF
		μg/L		Salt BCF:	4.7E+2		VER_BCF
Fresh Ecol LC50:	4.8E-2	μg/L	ECOTOX	ENVIRONMENTAL			
Salt Ecol LC50:	2.6E+2	μg/L	ECOTOX	Parameter	Value	Unit	Source
				Fresh BCF:	1.1E+2		VER_BCF
				Salt BCF:	4.7E+2		VER_BCF
PERSISTENCE				Log Kow:	-5.7E-1		PHYSPROP
Parameter	Value	Unit	Source	Water Solub:			
LAKE - Halflives				Geo Mean Sol:	1.5E+3	mg/L	CALC
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:		days					
Log Kow:	-5.7E-1		PHYSPROP				
CLASS INFORMATION							
		Class			Parent Substance		

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Nickel

CAS Number: 007440-02-0

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Gas Mobility:	
Gas Migration:	

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Water Solub:	
Distrib:	6.5E+1
Geo Mean Sol:	1.5E+3
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E-2

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	100
Salt Tox:	1000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	0.5
Salt:	500.0

Bioaccumulation	
Fresh:	500.0
Salt:	500.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		<u>µg/m³</u>	MCL/MCLG:		<u>mg/L</u>	Cancer Risk:		<u>mg/kg</u>
Cancer Risk:		<u>mg/m³</u>	Cancer Risk:		<u>mg/L</u>	Non Cancer Risk:	1.6E+3	<u>mg/kg</u>
Non Cancer Risk:	7.3E-1	<u>mg/m³</u>	Non Cancer Risk:	7.3E-1	<u>mg/L</u>			

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL:		<u>pCi/L</u>
UMTRCA:		<u>pCi/kg</u>

CANCER RISK	
Air:	<u>pCi/m³</u>
DW:	<u>pCi/L</u>
FC:	<u>pCi/kg</u>
Soil Ing:	<u>pCi/kg</u>
Soil Gam:	<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>mg/L</u>
Cancer Risk:		<u>mg/L</u>
Non Cancer Risk:	7.3E-1	<u>mg/L</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
FDAAL:		<u>ppm</u>
Cancer Risk:		<u>mg/kg</u>
Non Cancer Risk:	2.7E+1	<u>mg/kg</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:	4.7E+2	<u>D, E, K</u>

Salt CMC:	7.4E+1	<u>D, bb</u>
CHRONIC		

Fresh CCC: 5.2E+1 D, E, K

Salt CCC: 8.2E+0 D, bb

µg/L

µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Nickel 59 (radionuclide)

CAS Number: 014336-70-0

TOXICITY				PHYSICAL CHARACTERISTICS			
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TOXICITY				PHYSICAL CHARACTERISTICS			
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:	Food: 3.89E-13 Soil: 7.33E-13 Water: 2.70E-13	(pCi) ⁻¹	HEAST	Gas:	No		
Oral Wt-of-Evid:	A			Particulate:	Yes		
Inhal Slope:	4.7E-13	(pCi) ⁻¹	HEAST	Radionuclide:	Yes		
Inhal Wt-of-Evid:	A			Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	5.9E+1		
Oral ED10 Wgt:		mg/kg/day		Density:	8.9E+0	g/mL @	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:		µg/L					
Salt Ecol LC50:		µg/L					

PERSISTENCE				BIOACCUMULATION			
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PERSISTENCE				BIOACCUMULATION			
LAKE - Halflives				FOOD CHAIN			
Hydrolysis:		days		Fresh BCF:	8.0E-1		VER_BCF
Volatility:		days		Salt BCF:	4.7E+2		VER_BCF
Photolysis:		days					
Biodeg:		days					
Radio:	2.7E+7	days	SSG-Rad				
RIVER - Halflives							
Hydrolysis:		days		Log Kow:	-5.7E-1		PHYSPROP
Volatility:		days		Water Solub:			
Photolysis:		days		Geo Mean Sol:	1.5E+3	mg/L	CALC
Biodeg:		days					
Radio:	2.7E+7	days	SSG-Rad				
Log Kow:	-5.7E-1		PHYSPROP				
ENVIRONMENTAL							
Fresh BCF:		1.1E+2					
Salt BCF:		4.7E+2					
OTHER DATA							
Melting Point:		1.5E+3					
Boiling Point:		2.7E+3					
Formula:		Ni-59					

CLASS INFORMATION			
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CLASS INFORMATION	
Class	
GW Mob:	007440-02-0
Other:	007440-02-0

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Nickel 59 (radionuclide)

CAS Number: 014336-70-0

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Gas Mobility:	
Gas Migration:	

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Water Solub:	
Distrib:	6.5E+1
Geo Mean Sol:	1.5E+3
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E-2

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	100
Salt Tox:	100

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation

Fresh:	0.5
Salt:	500.0

Bioaccumulation

Fresh:	500.0
Salt:	500.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		$\mu\text{g}/\text{m}^3$
Cancer Risk:		mg/m^3
Non Cancer Risk:		mg/m^3

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		MCL/MCLG:
Cancer Risk:		mg/L
Non Cancer Risk:		mg/L

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Cancer Risk:		mg/L
Non Cancer Risk:		mg/L

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL:	3.0E+2	pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:	1.0E+1	pCi/m^3
DW:	1.8E+2	pCi/L
FC:	4.5E+3	pCi/kg
Soil Ing:	1.1E+6	pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L
Cancer Risk:		mg/L
Non Cancer Risk:		mg/L

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
FDAAL:		ppm
Cancer Risk:		mg/kg
Non Cancer Risk:		mg/kg

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:		$\mu\text{g}/\text{L}$

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
CHRONIC		
Fresh CCC:		$\mu\text{g}/\text{L}$

Salt CMC:

$\mu\text{g}/\text{L}$

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Nickel 63 (radionuclide)

CAS Number: 013981-37-8

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>
Oral RfD:		mg/kg/day		Metal Contain:	Yes
Inhal RfD:		mg/kg/day		Organic:	No
Oral Slope:	Food: 9.51E-13 Soil: 1.79E-12 Water: 6.70E-13	(pCi) ⁻¹	HEAST	Gas:	No
Oral Wt-of-Evid:	A	(pCi) ⁻¹	HEAST	Particulate:	Yes
Inhal Slope:	1.6E-12	(pCi) ⁻¹	HEAST	Radionuclide:	Yes
Inhal Wt-of-Evid:	A			Rad. Element:	No
Oral ED10:		mg/kg/day		Molecular Weight:	6.3E+1
Oral ED10 Wgt:				Density:	8.9E+0 g/mL @ C
Inhal ED10:		mg/kg/day			
Inhal ED10 Wgt:					
Oral LD50:		mg/kg			
Dermal LD50:		mg/kg			
Gas Inhal LC50:		ppm			
Dust Inhal LC50:		mg/L			
ACUTE					
Fresh CMC:		µg/L			
Salt CMC:		µg/L			

CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	3.7E+4	days	SSG-Rad
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	3.7E+4	days	SSG-Rad
Log Kow:	-5.7E-1		PHYSPROP

MOBILITY			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m ³ /mol	
Water Solub:		mg/L	
Distrib Coef:	6.5E+1	ml/g	SSG_KD
Geo Mean Sol:	1.5E+3	mg/L	CALC

BIOACCUMULATION			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	8.0E-1		VER_BCF
Salt BCF:	4.7E+2		VER_BCF

ENVIRONMENTAL			
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Fresh BCF:	1.1E+2		VER_BCF
Salt BCF:	4.7E+2		VER_BCF

Log Kow:	-5.7E-1		PHYSPROP
Water Solub:			
Geo Mean Sol:	1.5E+3	mg/L	CALC

OTHER DATA			
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Melting Point:	1.5E+3	C
Boiling Point:	2.7E+3	C
Formula:	Ni-63	

CLASS INFORMATION			
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<u>Class</u>	<u>Parent Substance</u>
GW Mob:	007440-02-0
Other:	007440-02-0

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Nickel 63 (radionuclide)

CAS Number: 013981-37-8

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Gas Mobility:	
Gas Migration:	

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Water Solub:	
Distrib:	6.5E+1
Geo Mean Sol:	1.5E+3
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E-2

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	100
Salt Tox:	100

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	0.5
Salt:	500.0

Bioaccumulation	
Fresh:	500.0
Salt:	500.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:	
Cancer Risk:	
Non Cancer Risk:	

<u>Parameter</u>	<u>Value</u>
µg/m ³	MCL/MCLG:
mg/m ³	Cancer Risk:
mg/m ³	Non Cancer Risk:

<u>Parameter</u>	<u>Value</u>
mg/L	Cancer Risk:
mg/L	Non Cancer Risk:

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL:	5.0E+1	pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:	2.9E+0	pCi/m ³
DW:	7.1E+1	pCi/L
FC:	1.9E+3	pCi/kg
Soil Ing:	4.4E+5	pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	
Cancer Risk:	
Non Cancer Risk:	

<u>Parameter</u>	<u>Value</u>
FDAAL:	
Cancer Risk:	
Non Cancer Risk:	

<u>Parameter</u>	<u>Value</u>
ppm	
mg/kg	
mg/kg	

<u>Parameter</u>	<u>Value</u>
ACUTE	
Fresh CMC:	
Salt CMC:	

CHRONIC	
Fresh CCC:	
Salt CCC:	

<u>Unit</u>	
µg/L	
µg/L	
µg/L	

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Nitrosodiphenylamine, N-

CAS Number: 000086-30-6

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	4.9E-3	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	2.0E+2		
Oral ED10 Wgt:				Density:		g/mL @	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:		mg/kg					
Dermal LD50:	7.9E+3	mg/kg	RTECS				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	4.8E+3	µg/L	ECOTOX				
Salt Ecol LC50:		µg/L					
PERSISTENCE							
Parameter	Value	Unit	Source	ENVIRONMENTAL			
LAKE - Halflives							
Hydrolysis:		days		Fresh BCF:	2.2E+2		ECOTOX
Volatility:	1.5E+2	days	THOMAS	Salt BCF:			
Photolysis:		days					
Biodeg:	3.4E+1	days	FATERATE				
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days		Log Kow:	3.1E+0		CHEMFATE
Volatility:	3.0E+1	days	THOMAS	Water Solub:	3.5E+1		CHEMFATE
Photolysis:		days		Geo Mean Sol:		mg/L	
Biodeg:	3.4E+1	days	FATERATE				
Radio:		days					
Log Kow:	3.1E+0		CHEMFATE				
OTHER DATA							
Melting Point:	6.7E+1		C	Boiling Point:			
Formula:	C12 H10 N2 O						

CLASS INFORMATION

Class

Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Nitrosodiphenylamine, N-

CAS Number: 000086-30-6

ASSIGNED FACTOR VALUES

AIR PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10
Gas Mobility:	0.0200
Gas Migration:	6

GROUND WATER PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10
Water Solub:	3.5E+1
Distrib:	2.0E+2
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	2.0E-1
Non Karst:	2.0E-3

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10

SURFACE WATER PATHWAY

DRINKING WATER

<u>Parameter</u>	<u>Value</u>
Toxicity:	10

HUMAN FOOD CHAIN

<u>Parameter</u>	<u>Value</u>
Toxicity:	10

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	100
Salt Tox:	100

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation

Fresh:	500.0
Salt:	500.0

Bioaccumulation

Fresh:	500.0
Salt:	500.0

BENCHMARKS

AIR PATHWAY

<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:	
Cancer Risk:	
Non Cancer Risk:	

GROUND WATER PATHWAY

<u>Parameter</u>	<u>Value</u>
Unit	
µg/m ³	MCL/MCLG:
mg/m ³	Cancer Risk:
mg/m ³	Non Cancer Risk:

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Unit	
mg/L	Cancer Risk:
mg/L	Non Cancer Risk:

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>
Unit	
MCL:	pCi/L
UMTRCA:	pCi/kg
CANCER RISK	
Air:	pCi/m ³
DW:	pCi/L
FC:	pCi/kg
Soil Ing:	pCi/kg
Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	
Cancer Risk:	1.7E-2
Non Cancer Risk:	

HUMAN FOOD CHAIN

<u>Parameter</u>	<u>Value</u>
Unit	
mg/L	FDAAL:
mg/L	Cancer Risk:
mg/L	Non Cancer Risk:

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Unit	
ACUTE	
Fresh CMC:	µg/L
Salt CMC:	µg/L
CHRONIC	
Fresh CCC:	µg/L
Salt CCC:	µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Pentachlorodibenzo-p-dioxin 1,2,3,7,8-

CAS Number: 040321-76-4

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	7.5E+4	(mg/kg/day)^-1	LIVECHEM
Oral Wt-of-Evid:	B2		
Inhal Slope:	7.5E+4	(mg/kg/day)^-1	LIVECHEM
Inhal Wt-of-Evid:	B2		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:	3.0E-3	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L

Fresh Ecol LC50:	μg/L
Salt Ecol LC50:	μg/L

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	1.9E+2	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	

RIVER - Halflives

Hydrolysis:	days	
Volatility:	2.0E+1	days
Photolysis:		days
Biodeg:		days
Radio:		days

Log Kow: 6.6E+0 PHYSPROP

MOBILITY			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.3E-10	Torr	PHYSPROP
Henry's Law:	2.6E-6	atm-m3/mol	PHYSPROP
Water Solub:	1.5E-4	mg/L	PHYSPROP
Distrib Coef:	5.1E+5	ml/g	DITOR_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:			
Salt BCF:			
Log Kow:	6.6E+0		PHYSPROP
Water Solub:	1.5E-4		PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA			
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Melting Point:		C
Boiling Point:		C
Formula:	C12 H3 Cl5 O2	

CLASS INFORMATION			
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Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Pentachlorodibenzo-p-dioxin 1,2,3,7,8-

CAS Number: 040321-76-4

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:		Water Solub:	1.5E-4		
Gas Migration:		Distrib:	5.1E+5		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-4		
		Non Liq. Karst:	2.0E-5		
		Non Karst:	2.0E-9		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	0
Persistence		Persistence		Salt Tox:	0
River:	1.0000	River:	1.0000	Persistence	
Lake:	1.0000	Lake:	1.0000	River:	1.0000
		Bioaccumulation		Lake:	1.0000
		Fresh:	50000.0	Bioaccumulation	
		Salt:	50000.0	Fresh:	50000.0
				Salt:	50000.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIOMUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		<u>µg/m³</u>	MCL/MCLG:		<u>mg/L</u>	Cancer Risk:	8.5E-6
Cancer Risk:	1.1E-10	<u>mg/m³</u>	Cancer Risk:	1.1E-9	<u>mg/L</u>	Non Cancer Risk:	
Non Cancer Risk:		<u>mg/m³</u>	Non Cancer Risk:		<u>mg/L</u>		
						<u>Parameter</u>	<u>Value</u>
						MCL:	<u>pCi/L</u>
						UMTRCA:	<u>pCi/kg</u>
						CANCER RISK	
						Air:	<u>pCi/m³</u>
						DW:	<u>pCi/L</u>
						FC:	<u>pCi/kg</u>
						Soil Ing:	<u>pCi/kg</u>
						Soil Gam:	<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>mg/L</u>	FDAL:		<u>ppm</u>	ACUTE		
Cancer Risk:	1.1E-9	<u>mg/L</u>	Cancer Risk:	4.2E-8	<u>mg/kg</u>	Fresh CMC:		<u>µg/L</u>
Non Cancer Risk:		<u>mg/L</u>	Non Cancer Risk:		<u>mg/kg</u>	Salt CMC:		<u>µg/L</u>
						CHRONIC		
						Fresh CCC:		<u>µg/L</u>
						Salt CCC:		<u>µg/L</u>

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Pentachlorodibenzofuran 1,2,3,7,8-

CAS Number: 057117-41-6

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	3.4E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	@		
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gás Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:		µg/L					
Salt Ecol LC50:		µg/L					
PERSISTENCE							
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days					
Volatility:	1.7E+2	days	THOMAS				
Photolysis:		days					
Biodeg:		days					
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	5.7E+0	days	THOMAS				
Photolysis:		days					
Biodeg:		days					
Radio:		days					
Log Kow:	6.8E+0		PHYSPROP	Melting Point:			
				Boiling Point:			
				Formula:	C12H3Cl5O		

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Pentachlorodibenzofuran 1,2,3,7,8-

CAS Number: 057117-41-6

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	0	Toxicity:	0	Toxicity:	0
Gas Mobility:		Water Solub:	9.1E-3		
Gas Migration:		Distrib:	7.2E+5		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-4		
		Non Liq. Karst:	2.0E-5		
		Non Karst:	2.0E-9		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	0	Toxicity:	0	Fresh Tox:	0
Persistence		Persistence		Salt Tox:	0
River:	1.0000	River:	1.0000	Persistence	
Lake:	1.0000	Lake:	1.0000	River:	1.0000
		Bioaccumulation		Lake:	1.0000
		Fresh:	50000.0	Bioaccumulation	
		Salt:	50000.0	Fresh:	50000.0
				Salt:	50000.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value
NAAQS/NESHAPS:		µg/m³	MCL/MCLG:		mg/L	Cancer Risk:	
Cancer Risk:		mg/m³	Cancer Risk:		mg/L	Non Cancer Risk:	
Non Cancer Risk:		mg/m³	Non Cancer Risk:		mg/L		
						MCL:	Unit
						mg/kg	pCi/L
						UMTRCA:	pCi/kg
						CANCER RISK	
						Air:	pCi/m³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAL:		ppm
Cancer Risk:		mg/L	Cancer Risk:		mg/kg
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:
					µg/L
					µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Pentachlorodibenzofuran 2,3,4,7,8-

CAS Number: 057117-31-4

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	1.5E+4	(mg/kg/day)^-1	LIVECHEM	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:	1.5E+4	(mg/kg/day)^-1	LIVECHEM	Radionuclide:	No		
Inhal Wt-of-Evid:	B2			Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	3.4E+2		
Oral ED10 Wgt:		mg/kg/day		Density:		g/mL @ C	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:		µg/L					
Salt Ecol LC50:		µg/L					
PERSISTENCE							
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives							
Hydrolysis:		days					
Volatility:	1.7E+2	days	THOMAS				
Photolysis:		days					
Biodeg:		days					
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	5.7E+0	days	THOMAS				
Photolysis:		days					
Biodeg:		days					
Radio:		days					
Log Kow:	6.9E+0		PHYSPROP	Melting Point:		C	
				Boiling Point:		C	
				Formula:	C12 H3 Cl5 O		

MOBILITY			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.5E-7	Torr	PHYSPROP
Henry's Law:	1.1E-5	atm-m3/mol	PHYSPROP
Water Solub:		mg/L	PHYSPROP
Distrib Coef:	9.6E+5	ml/g	DITOR_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:			
Salt BCF:			
Log Kow:	6.9E+0		PHYSPROP
Water Solub:			PHYSPROP
Geo Mean Sol:		mg/L	

OTHER DATA			
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Melting Point:		C
Boiling Point:		C
Formula:	C12 H3 Cl5 O	

CLASS INFORMATION	
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Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Pentachlorodibenzofuran 2,3,4,7,8-

CAS Number: 057117-31-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter	Value
Toxicity:	10000
Gas Mobility:	0.0020
Gas Migration:	6

GROUND WATER PATHWAY

Parameter	Value
Toxicity:	10000
Water Solub:	
Distrib:	9.6E+5
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	
Non Karst:	

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter	Value
Toxicity:	10000

HUMAN FOOD CHAIN

Parameter	Value
Toxicity:	10000

ENVIRONMENTAL

Parameter	Value
Fresh Tox:	0
Salt Tox:	0

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation

Fresh:	0.5
Salt:	0.5

Bioaccumulation	
Fresh:	0.5
Salt:	0.5

BENCHMARKS

AIR PATHWAY

Parameter	Value
NAAQS/NESHAPS:	
Cancer Risk:	5.7E-10
Non Cancer Risk:	

GROUND WATER PATHWAY

Parameter	Value
Unit	
$\mu\text{g}/\text{m}^3$	MCL/MCLG:
mg/m3	Cancer Risk:
mg/m3	Non Cancer Risk:

SOIL EXPOSURE PATHWAY

Parameter	Value
Unit	
mg/L	Cancer Risk:
mg/L	Non Cancer Risk:
mg/L	

RADIONUCLIDE

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m3
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter	Value
MCL/MCLG:	
Cancer Risk:	5.7E-9
Non Cancer Risk:	

HUMAN FOOD CHAIN

Parameter	Value
Unit	
mg/L	FDAAL:
mg/L	Cancer Risk:
mg/L	Non Cancer Risk:

ENVIRONMENTAL

Parameter	Value	Unit
ACUTE		
Fresh CMC:		$\mu\text{g}/\text{L}$
Salt CMC:		$\mu\text{g}/\text{L}$
CHRONIC		
Fresh CCC:		$\mu\text{g}/\text{L}$
Salt CCC:		$\mu\text{g}/\text{L}$

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Pentachlorophenol (PCP)

CAS Number: 000087-86-5

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	3.0E-2	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	1.2E-1	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral Wt-of-Evid:	B2	(mg/kg/day)^-1		Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:		mg/kg/day		Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	2.7E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	2.0E+0	g/mL @ 22.00 C	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:	1.5E+2	mg/kg	ACGIH				
Dermal LD50:	9.6E+1	mg/kg	ACGIH				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE				MOBILITY			
Fresh CMC:	1.9E+1	F, K bb	μg/L	Parameter	Value	Unit	Source
Salt CMC:	1.3E+1	μg/L	WATCRIT	Vapor Press:	3.2E-5	Torr	CHEMFATE
CHRONIC				Henry's Law:	2.4E-8	atm-m3/mol	CHEMFATE
Fresh CCC:	1.5E+1	F, K bb	μg/L	Water Solub:	2.0E+3	mg/L	CHEMFATE
Salt CCC:	7.9E+0	μg/L	WATCRIT	Distrib Coef:	1.2E+0	ml/g	RTI_ION
Fresh Ecol LC50:	4.0E-1	μg/L	ECOTOX	Geo Mean Sol:		mg/L	
Salt Ecol LC50:	3.7E+1	μg/L	ECOTOX	BIOACCUMULATION			
PERSISTENCE				FOOD CHAIN			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives				Fresh BCF:	4.5E+4		ECOTOX
Hydrolysis:		days		Salt BCF:	1.3E+3		ECOTOX
Volatility:		days		ENVIRONMENTAL			
Photolysis:	4.2E+0	days	CHEMFATE	Fresh BCF:	4.5E+4		ECOTOX
Biodeg:	4.8E+1	days	CHEMFATE	Salt BCF:	3.8E+3		ECOTOX
Radio:		days		Log Kow:	5.1E+0		CHEMFATE
RIVER - Halflives				Water Solub:	2.0E+3		CHEMFATE
Hydrolysis:		days		Geo Mean Sol:		mg/L	
Volatility:		days		OTHER DATA			
Photolysis:	4.2E+0	days	CHEMFATE	Melting Point:	1.7E+2	C	
Biodeg:	4.8E+1	days	CHEMFATE	Boiling Point:		C	
Radio:		days		Formula:	C6 H Cl5 O		
Log Kow:	5.1E+0		CHEMFATE				

CLASS INFORMATION

Class

Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Pentachlorophenol (PCP)

CAS Number: 000087-86-5

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	100	Toxicity:	100	Toxicity:	100
Gas Mobility:	0.0200	Water Solub:	2.0E+3		
Gas Migration:	6	Distrib:	1.2E+0		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	100	Toxicity:	100	Fresh Tox:	100
				Salt Tox:	1000
Persistence		Persistence		Persistence	
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	50000.0	Fresh:	50000.0
		Salt:	5000.0	Salt:	5000.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIOMUCLIDE	
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:	1.0E-3	mg/L	Cancer Risk:	5.3E+0
Cancer Risk:		mg/m ³	Cancer Risk:	7.1E-4	mg/L	Non Cancer Risk:	2.3E+3
Non Cancer Risk:		mg/m ³	Non Cancer Risk:	1.1E+0	mg/L		
						MCL:	
						UMTRCA:	
						CANCER RISK	
						Air:	pCi/m ³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:	1.0E-3	mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:	7.1E-4	mg/L	Cancer Risk:	2.6E-2	mg/kg	Fresh CMC:	1.9E+1 ^{F,K}	µg/L
Non Cancer Risk:	1.1E+0	mg/L	Non Cancer Risk:	4.1E+1	mg/kg	Salt CMC:	1.3E+1 ^{bb}	µg/L
						CHRONIC		
						Fresh CCC:	1.5E+1 ^{F,K}	µg/L
						Salt CCC:	7.9E+0 ^{bb}	µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Perchlorate

CAS Number: 014797-73-0

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	1.0E-4	mg/kg/day	LIVECHEM	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.0E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	@		
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:		µg/L					
Salt Ecol LC50:		µg/L					
PERSISTENCE							
Parameter	Value	Unit	Source	BIOACCUMULATION			
LAKE - Halflives							
Hydrolysis:		days		Parameter	Value	Unit	Source
Volatility:		days		FOOD CHAIN			
Photolysis:		days		Fresh BCF:			
Biodeg:		days		Salt BCF:			
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days		ENVIRONMENTAL			
Volatility:		days		Fresh BCF:			
Photolysis:		days		Salt BCF:			
Biodeg:		days					
Radio:		days					
Log Kow:	-5.8E+0		LIVECHEM	Log Kow:	-5.8E+0		LIVECHEM
				Water Solub:	2.0E+5		LIVECHEM
				Geo Mean Sol:		mg/L	
CLASS INFORMATION							
Class	Parent Substance						

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Perchlorate

CAS Number: 014797-73-0

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:		Water Solub:	2.0E+5		
Gas Migration:		Distrib:	2.8E-7		
		Geo Mean Sol:			
		Mobility:			
Liquid	Karst:	1.0E+00			
	Non Karst:	1.0E+00			
Non Liq.	Karst:	1.0E+00			
	Non Karst:	1.0E+00			

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	0
Persistence		Persistence		Salt Tox:	0
River:	0.4000	River:	0.4000	Persistence	
Lake:	0.0700	Lake:	0.0700	River:	0.4000
		Bioaccumulation		Lake:	0.0700
		Fresh:	0.5	Bioaccumulation	
		Salt:	0.5	Fresh:	0.5
				Salt:	0.5

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIOMUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:	
Cancer Risk:		mg/m ³	Cancer Risk:		mg/L	Non Cancer Risk:	7.8E+0
Non Cancer Risk:		mg/m ³	Non Cancer Risk:	3.7E-3	mg/L		
						UMTRCA:	
						CANCER RISK	
						Air:	pCi/m ³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L	FDAAL:		ppm
Cancer Risk:		mg/L	Cancer Risk:		mg/kg
Non Cancer Risk:	3.7E-3	mg/L	Non Cancer Risk:	1.4E-1	mg/kg
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Phenanthrene

CAS Number: 000085-01-8

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:		(mg/kg/day)^-1		Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.8E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	9.8E-1	g/mL @ 4.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg					
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	7.0E+1	µg/L	ECOTOX				
Salt Ecol LC50:	4.6E+1	µg/L	ECOTOX				

MOBILITY			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.1E-4	Torr	CHEMFATE
Henry's Law:	2.3E-5	atm-m ³ /mol	CHEMFATE
Water Solub:	1.1E+0	mg/L	CHEMFATE
Distrib Coef:	3.7E+3	mL/g	DITOR KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:	1.2E+3		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	1.1E+4		ECOTOX
Salt BCF:	1.3E+3		ECOTOX
Log Kow:	4.5E+0		CHEMFATE
Water Solub:	1.1E+0		CHEMFATE
Geo Mean Sol:		mg/L	

OTHER DATA			
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PERSISTENCE			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	1.2E+2	days	THOMAS
Photolysis:	3.5E-1	days	CHEMFATE
Biodeg:	2.0E+2	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:	2.7E+0	days	THOMAS
Photolysis:	3.5E-1	days	CHEMFATE
Biodeg:	2.0E+2	days	FATERATE
Radio:		days	
Log Kow:	4.5E+0		CHEMFATE

Melting Point: 9.9E+1 C
 Boiling Point: 3.4E+2 C
 Formula: C₁₄H₁₀

CLASS INFORMATION	
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Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Phenanthrene

CAS Number: 000085-01-8

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	0	Toxicity:	0	Toxicity:	0
Gas Mobility:	0.0200	Water Solub:	1.1E+0		
Gas Migration:	11	Distrib:	3.7E+3		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-4		
		Non Liq. Karst:	2.0E-1		
		Non Karst:	2.0E-5		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	0	Toxicity:	0	Fresh Tox:	10000
Persistence		Persistence		Salt Tox:	10000
River:	0.4000	River:	0.4000	Persistence	
Lake:	0.4000	Lake:	0.4000	River:	0.4000
		Bioaccumulation		Lake:	0.4000
		Fresh:	5000.0	Bioaccumulation	
		Salt:	5000.0	Fresh:	50000.0
				Salt:	5000.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value
NAAQS/NESHAPS:		µg/m³	MCL/MCLG:		mg/L	Cancer Risk:	
Cancer Risk:		mg/m³	Cancer Risk:		mg/L	Non Cancer Risk:	
Non Cancer Risk:		mg/m³	Non Cancer Risk:		mg/L		CANCER RISK
						Air:	pCi/m³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAL:		ppm
Cancer Risk:		mg/L	Cancer Risk:		mg/kg
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg
				ACUTE	
				Fresh CMC:	µg/L
				Salt CMC:	µg/L
				CHRONIC	
				Fresh CCC:	µg/L
				Salt CCC:	µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Phenol

CAS Number: 000108-95-2

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	3.0E-1	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	No		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	9.4E+1		
Oral ED10 Wgt:		mg/kg/day		Density:	1.1E+0	g/mL @ 45.00	C
Inhal ED10:							
Inhal ED10 Wgt:							
Oral LD50:	5.3E+2	mg/kg	ACGIH				
Dermal LD50:	6.3E+2	mg/kg	RTECS				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	1.8E+0	µg/L	ECOTOX				
Salt Ecol LC50:	1.0E+2	µg/L	ECOTOX				
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days					
Volatility:	1.6E+2	days	THOMAS				
Photolysis:	7.2E+0	days	FATERATE				
Biodeg:	1.3E-1	days	CHEMFATE				
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	7.2E+1	days	THOMAS				
Photolysis:	7.2E+0	days	FATERATE				
Biodeg:	1.3E-1	days	CHEMFATE				
Radio:		days					
Log Kow:	1.5E+0		CHEMFATE				
CLASS INFORMATION				ENVIRONMENTAL			
Class	Parent Substance			Parameter	Value	Unit	Source
				Food Chain			
				Fresh BCF:	3.9E+1		ECOTOX
				Salt BCF:	8.8E+0		ECOTOX
				Log Kow:	1.5E+0		CHEMFATE
				Water Solub:	8.3E+4		CHEMFATE
				Geo Mean Sol:		mg/L	
OTHER DATA				BIOACCUMULATION			
				Parameter	Value	Unit	Source
				Food Chain			
				Fresh BCF:	5.3E+4		ECOTOX
				Salt BCF:	8.8E+0		ECOTOX
				Log Kow:	1.5E+0		CHEMFATE
				Water Solub:	8.3E+4		CHEMFATE
				Geo Mean Sol:		mg/L	
CLASS INFORMATION				OTHER DATA			
Class	Parent Substance			Parameter	Value	Unit	Source
				Melting Point:	4.1E+1		C
				Boiling Point:	1.8E+2		C
				Formula:	C6 H6 O		

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Phenol

CAS Number: 000108-95-2

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10	Toxicity:	10	Toxicity:	10
Gas Mobility:	1.0000	Water Solub:	8.3E+4		
Gas Migration:	11	Distrib:	4.4E+0		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10	Toxicity:	10	Fresh Tox:	10000
				Salt Tox:	1000
Persistence		Persistence		Persistence	
River:	0.0007	River:	0.0007	River:	0.0007
Lake:	0.0700	Lake:	0.0700	Lake:	0.0700
		Bioaccumulation		Bioaccumulation	
		Fresh:	50.0	Fresh:	50000.0
		Salt:	5.0	Salt:	5.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:	
Cancer Risk:		mg/m ³	Cancer Risk:		mg/L	Non Cancer Risk:	2.3E+4
Non Cancer Risk:		mg/m ³	Non Cancer Risk:	1.1E+1	mg/L		
						UMTRCA:	
						CANCER RISK	
						Air:	pCi/m ³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAL:		ppm
Cancer Risk:		mg/L	Cancer Risk:		mg/kg
Non Cancer Risk:	1.1E+1	mg/L	Non Cancer Risk:	4.1E+2	mg/kg
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Plutonium

CAS Number: 007440-07-5

TOXICITY		PHYSICAL CHARACTERISTICS	
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>
Oral RfD:		mg/kg/day		Metal Contain:	Yes
Inhal RfD:		mg/kg/day		Organic:	No
Oral Slope:				Gas:	No
Oral Wt-of-Evid:				Particulate:	Yes
Inhal Slope:				Radionuclide:	No
Inhal Wt-of-Evid:				Rad. Element:	Yes
Oral ED10:		mg/kg/day		Molecular Weight:	2.4E+2
Oral ED10 Wgt:				Density:	2.0E+1 g/mL @ C
Inhal ED10:		mg/kg/day			
Inhal ED10 Wgt:					
Oral LD50:		mg/kg			
Dermal LD50:		mg/kg			
Gas Inhal LC50:		ppm			
Dust Inhal LC50:		mg/L			
ACUTE					
Fresh CMC:		µg/L			
Salt CMC:		µg/L			
CHRONIC					
Fresh CCC:		µg/L		Vapor Press:	Torr
Salt CCC:		µg/L		Henry's Law:	atm-m ³ /mol
Fresh Ecol LC50:		µg/L		Water Solub:	mg/L
Salt Ecol LC50:		µg/L		Distrib Coef:	4.5E+3 ml/g BAES_KD
PERSISTENCE					
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>
LAKE - Halflives					
Hydrolysis:		days		Food Chain	
Volatility:		days		Fresh BCF:	
Photolysis:		days		Salt BCF:	
Biodeg:		days			
Radio:		days			
RIVER - Halflives					
Hydrolysis:		days		Log Kow:	
Volatility:		days		Water Solub:	
Photolysis:		days		Geo Mean Sol:	mg/L
Biodeg:		days			
Radio:		days			
Log Kow:					

MOBILITY			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m ³ /mol	
Water Solub:		mg/L	
Distrib Coef:	4.5E+3	ml/g	BAES_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Food Chain			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:		mg/L	

OTHER DATA		
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Melting Point:	6.4E+2	C
Boiling Point:	3.2E+3	C
Formula:	Pu	

CLASS INFORMATION	
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Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
Chemical: Plutonium

CAS Number: 007440-07-5

HRS factor values are assigned to radioactive isotopes but not to radioactive elements. Data for a radioactive element is used to derive factor values for that element's isotopes.

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Plutonium 236 (radionuclide)

CAS Number: 015411-92-4

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>
Oral RfD:		mg/kg/day		Metal Contain:	Yes
Inhal RfD:		mg/kg/day		Organic:	No
Oral Slope:	Food: 9.92E-11 Soil: 1.74E-10 Water: 7.47E-11	(pCi)^-1	HEAST	Gas:	No
Oral Wt-of-Evid:	A	(pCi)^-1	HEAST	Particulate:	Yes
Inhal Slope:	2.3E-8	(pCi)^-1	HEAST	Radionuclide:	Yes
Inhal Wt-of-Evid:	A			Rad. Element:	No
Oral ED10:		mg/kg/day		Molecular Weight:	2.4E+2
Oral ED10 Wgt:		mg/kg/day		Density:	g/mL @ C
Inhal ED10:		mg/kg/day			
Inhal ED10 Wgt:		mg/kg/day			
Oral LD50:		mg/kg			
Dermal LD50:		mg/kg			
Gas Inhal LC50:		ppm			
Dust Inhal LC50:		mg/L			

ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	

CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	

Fresh Ecol LC50:			
		µg/L	

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.0E+3	days	SSG-Rad

RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.0E+3	days	SSG-Rad

Log Kow:

CLASS INFORMATION			
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<u>Class</u>	<u>Parent Substance</u>
GW Mob:	007440-07-5
Other:	007440-07-5

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Plutonium 236 (radionuclide)

CAS Number: 015411-92-4

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:		Water Solub:			
Gas Migration:		Distrib:	4.5E+3		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-4		
		Non Liq. Karst:			
		Non Karst:			

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	10000
Persistence		Persistence		Salt Tox:	10000
River:	1.0000	River:	1.0000	Persistence	
Lake:	1.0000	Lake:	1.0000	River:	1.0000
		Bioaccumulation		Lake:	1.0000
		Fresh:	500.0	Bioaccumulation	
		Salt:	500.0	Fresh:	500.0
				Salt:	500.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:	
Cancer Risk:		mg/m ³	Cancer Risk:		mg/L	Non Cancer Risk:	
Non Cancer Risk:		mg/m ³	Non Cancer Risk:		mg/L		
						CANCER RISK	
						Air:	2.1E-4
						DW:	6.4E-1
						FC:	1.8E+1
						Soil Ing:	4.6E+3
						Soil Gam:	pCi/kg
							pCi/m ³
							pCi/L
							pCi/kg
							µg/L

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L	FDAAL:		ppm
Cancer Risk:		mg/L	Cancer Risk:		mg/kg
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg
				ACUTE	
				Fresh CMC:	
				Salt CMC:	
				CHRONIC	
				Fresh CCC:	µg/L
				Salt CCC:	µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Plutonium 238 (radionuclide)

CAS Number: 013981-16-3

TOXICITY				PHYSICAL CHARACTERISTICS			
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Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	Food: 1.69E-10 Soil: 2.72E-10 Water: 1.31E-10	(pCi)~1 (pCi)~1 (pCi)~1	HEAST
Oral Wt-of-Evid:	A		
Inhal Slope:	3.4E-8	(pCi)~1	HEAST
Inhal Wt-of-Evid:	A		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L
Fresh Ecol LC50:	μg/L
Salt Ecol LC50:	μg/L

PERSISTENCE			
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Parameter	Value	Unit	Source
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	3.2E+4	days	SSG-Rad
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	3.2E+4	days	SSG-Rad

Log Kow:

PHYSICAL CHARACTERISTICS			
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Parameter	Value
Metal Contain:	Yes
Organic:	No
Gas:	No
Particulate:	Yes
Radionuclide:	Yes
Rad. Element:	No
Molecular Weight:	2.4E+2
Density:	g/mL @ C

MOBILITY			
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Parameter	Value	Unit	Source
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	4.5E+3	ml/g	BAES_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
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Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:			
Salt BCF:	7.8E+2		ECOTOX

ENVIRONMENTAL

Fresh BCF:	
Salt BCF:	7.8E+2

Log Kow:	
Water Solub:	
Geo Mean Sol:	mg/L

OTHER DATA			
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Melting Point:	C
Boiling Point:	C
Formula:	Pu-238

CLASS INFORMATION			
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Class	Parent Substance
GW Mob:	007440-07-5
Other:	007440-07-5

Part 5

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Plutonium 238 (radionuclide)

CAS Number: 013981-16-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter Value

Toxicity: 10000
Gas Mobility:
Gas Migration:

Parameter Value

Toxicity: 10000
Water Solub:
Distrib: 4.5E+3
Geo Mean Sol:
Mobility:
Liquid Karst: 1.0E+0
Non Karst: 1.0E-4
Non Liq. Karst:
Non Karst:

Parameter Value

Toxicity: 10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value

Toxicity: 10000

Parameter Value

Toxicity: 10000

Parameter Value

Fresh Tox: 10000

Persistence
River: 1.0000
Lake: 1.0000

Persistence
River: 1.0000
Lake: 1.0000

Persistence
River: 1.0000
Lake: 1.0000

Bioaccumulation

Fresh: 500.0
Salt: 500.0

Bioaccumulation

Fresh: 500.0
Salt: 500.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter Value

NAAQS/NESHAPS:

Cancer Risk:

Non Cancer Risk:

Unit

µg/m³

mg/m³

mg/m³

Parameter Value

MCL/MCLG:

Cancer Risk:

Non Cancer Risk:

Unit

mg/L

mg/L

mg/L

Parameter Value

Cancer Risk:

Non Cancer Risk:

Unit

mg/kg

mg/kg

mg/L

Parameter Value

MCL:

UMTRCA:

CANCER RISK

Unit

pCi/L

pCi/kg

Air: 1.4E-4
DW: 3.6E-1
FC: 1.0E+1
Soil Ing: 2.9E+3
Soil Gam: 500.0

pCi/m³

pCi/L

pCi/kg

pCi/kg

pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value

MCL/MCLG:

Cancer Risk:

Non Cancer Risk:

Unit

mg/L

mg/L

mg/L

Parameter Value

FDAAL:

Cancer Risk:

Non Cancer Risk:

Unit

ppm

mg/kg

mg/kg

Parameter Value

ACUTE

Fresh CMC:

Salt CMC:

Unit

µg/L

µg/L

CHRONIC

Fresh CCC:

Salt CCC:

µg/L

µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Plutonium 239 (radionuclide)

CAS Number: 015117-48-3

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>		
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:	Food: 1.74E-10 Soil: 2.76E-10 Water: 1.35E-10	(pCi) ⁻¹	HEAST	Gas:	No		
Oral Wt-of-Evid:	A	(pCi) ⁻¹	HEAST	Particulate:	Yes		
Inhal Slope:	3.3E-8	(pCi) ⁻¹	HEAST	Radionuclide:	Yes		
Inhal Wt-of-Evid:	A			Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	2.4E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	g/mL @ C		
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					

CHRONIC				MOBILITY			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Fresh CCC:		µg/L		Vapor Press:		Torr	
Salt CCC:		µg/L		Henry's Law:		atm-m ³ /mol	
Fresh Ecol LC50:		µg/L		Water Solub:		mg/L	
Salt Ecol LC50:		µg/L		Distrib Coef:	4.5E+3	ml/g	BAES_KD
				Geo Mean Sol:		mg/L	

PERSISTENCE				BIOACCUMULATION			
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives				FOOD CHAIN			
Hydrolysis:		days		Fresh BCF:			
Volatility:		days		Salt BCF:	7.8E+2		ECOTOX
Photolysis:		days					
Biodeg:		days					
Radio:	8.8E+6	days	SSG-Rad				
RIVER - Halflives							
Hydrolysis:		days		ENVIRONMENTAL			
Volatility:		days		Fresh BCF:			
Photolysis:		days		Salt BCF:	7.8E+2		ECOTOX
Biodeg:		days					
Radio:	8.8E+6	days	SSG-Rad				

Log Kow:

CLASS INFORMATION			
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<u>Class</u>	<u>Parent Substance</u>
GW Mob:	007440-07-5
Other:	007440-07-5

OTHER DATA			
Melting Point:		C	
Boiling Point:		C	
Formula:	Pu-239		

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Plutonium 239 (radionuclide)

CAS Number: 015117-48-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Gas Mobility:	
Gas Migration:	

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Water Solub:	
Distrib:	4.5E+3
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	
Non Karst:	

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	10000
Salt Tox:	10000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	500.0
Salt:	500.0

Bioaccumulation	
Fresh:	500.0
Salt:	500.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:		<u>µg/m³</u>
Cancer Risk:		<u>mg/m³</u>
Non Cancer Risk:		<u>mg/m³</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>MCL/MCLG:</u>
Cancer Risk:		<u>Cancer Risk:</u>
Non Cancer Risk:		<u>Non Cancer Risk:</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Cancer Risk:		<u>mg/L</u>
Non Cancer Risk:		<u>mg/L</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL:	1.5E+1	<u>pCi/L</u>
UMTRCA:		<u>pCi/kg</u>
CANCER RISK		
Air:	1.4E-4	<u>pCi/m³</u>
DW:	3.5E-1	<u>pCi/L</u>
FC:	1.0E+1	<u>pCi/kg</u>
Soil Ing:	2.9E+3	<u>pCi/kg</u>
Soil Gam:		<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		<u>mg/L</u>
Cancer Risk:		<u>mg/L</u>
Non Cancer Risk:		<u>mg/L</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
FDAAL:		<u>ppm</u>
Cancer Risk:		<u>mg/kg</u>
Non Cancer Risk:		<u>mg/kg</u>

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:		<u>µg/L</u>

<u>CHRONIC</u>	
Fresh CCC:	
Salt CCC:	

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Plutonium 240 (radionuclide)

CAS Number: 014119-33-6

TOXICITY				PHYSICAL CHARACTERISTICS			
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Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	Food: 1.74E-10 Soil: 2.77E-10 Water: 1.35E-10	(pCi) ⁻¹	HEAST
Oral Wt-of-Evid:	A		
Inhal Slope:	3.3E-8	(pCi) ⁻¹	HEAST
Inhal Wt-of-Evid:	A		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	

CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE			
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Parameter	Value	Unit	Source
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.4E+6	days	SSG-Rad
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.4E+6	days	SSG-Rad

Log Kow:

Parameter	Value
Metal Contain:	Yes
Organic:	No
Gas:	No
Particulate:	Yes
Radionuclide:	Yes
Rad. Element:	No
Molecular Weight:	2.4E+2
Density:	g/mL @ C

MOBILITY			
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Parameter	Value	Unit	Source
Vapor Press:		Torr	
Henry's Law:		atm-m ³ /mol	
Water Solub:		mg/L	
Distrib Coef:	4.5E+3	ml/g	BAES_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
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Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:			
Salt BCF:	7.8E+2		ECOTOX

ENVIRONMENTAL			
Fresh BCF:			
Salt BCF:	7.8E+2		ECOTOX

OTHER DATA			
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Melting Point:	C
Boiling Point:	C
Formula:	Pu-240

CLASS INFORMATION			
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Class	Parent Substance
GW Mob:	007440-07-5
Other:	007440-07-5

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Plutonium 240 (radionuclide)

CAS Number: 014119-33-6

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:		Water Solub:			
Gas Migration:		Distrib:	4.5E+3		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-4		
		Non Liq. Karst:			
		Non Karst:			

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	10000
Persistence		Persistence		Salt Tox:	10000
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	500.0	Fresh:	500.0
		Salt:	500.0	Salt:	500.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:		mg/kg	MCL:	1.5E+1	pCi/L
Cancer Risk:		mg/m ³	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m ³	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	1.4E-4	pCi/m ³
									DW:	3.5E-1	pCi/L
									FC:	1.0E+1	pCi/kg
									Soil Ing:	2.9E+3	pCi/kg
									Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Plutonium 241(+D) (radionuclide)

CAS Number: 014119-32-5

TOXICITY				PHYSICAL CHARACTERISTICS	
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>
Oral RfD:		mg/kg/day		Metal Contain:	Yes
Inhal RfD:		mg/kg/day		Organic:	No
Oral Slope:	Food: 2.28E-12 Soil: 3.29E-12 Water: 1.76E-12	(pCi) ⁻¹	HEAST	Gas:	No
Oral Wt-of-Evid:	A	(pCi) ⁻¹	HEAST	Particulate:	Yes
Inhal Slope:	3.3E-10	(pCi) ⁻¹	HEAST	Radionuclide:	Yes
Inhal Wt-of-Evid:	A			Rad. Element:	No
Oral ED10:		mg/kg/day		Molecular Weight:	2.4E+2
Oral ED10 Wgt:				Density:	g/mL @ C
Inhal ED10:		mg/kg/day			
Inhal ED10 Wgt:					
Oral LD50:		mg/kg			
Dermal LD50:		mg/kg			
Gas Inhal LC50:		ppm			
Dust Inhal LC50:		mg/L			
ACUTE					
Fresh CMC:		µg/L			
Salt CMC:		µg/L			

CHRONIC				MOBILITY	
Fresh CCC:		µg/L		<u>Parameter</u>	<u>Value</u>
Salt CCC:		µg/L			<u>Unit</u>
Fresh Ecol LC50:		µg/L		Vapor Press:	Torr
Salt Ecol LC50:		µg/L		Henry's Law:	atm-m ³ /mol
				Water Solub:	mg/L
				Distrib Coef:	ml/g
				Geo Mean Sol:	BAES_KD mg/L

PERSISTENCE				BIOACCUMULATION	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>
LAKE - Halflives				FOOD CHAIN	<u>Unit</u>
Hydrolysis:		days		Fresh BCF:	
Volatile:		days		Salt BCF:	7.8E+2
Photolysis:		days			ECOTOX
Biodeg:		days			
Radio:	5.1E+3	days	SSG-Rad		
RIVER - Halflives				ENVIRONMENTAL	
Hydrolysis:		days		Fresh BCF:	
Volatile:		days		Salt BCF:	7.8E+2
Photolysis:		days			ECOTOX
Biodeg:		days			
Radio:	5.1E+3	days	SSG-Rad		

Log Kow:

CLASS INFORMATION			
<u>Class</u>		<u>Parent Substance</u>	
GW Mob:		007440-07-5	
Other:		007440-07-5	

Melting Point:	C
Boiling Point:	C
Formula:	Pu-241

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Plutonium 241(+D) (radionuclide)

CAS Number: 014119-32-5

ASSIGNED FACTOR VALUES

AIR PATHWAY	GROUND WATER PATHWAY	SOIL EXPOSURE PATHWAY
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Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:		Water Solub:			
Gas Migration:		Distrib:	4.5E+3		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-4		
		Non Liq. Karst:			
		Non Karst:			

SURFACE WATER PATHWAY

DRINKING WATER	HUMAN FOOD CHAIN	ENVIRONMENTAL
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Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	10000
				Salt Tox:	10000
Persistence		Persistence		Persistence	
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	500.0	Fresh:	500.0
		Salt:	500.0	Salt:	500.0

BENCHMARKS

AIR PATHWAY	GROUND WATER PATHWAY	SOIL EXPOSURE PATHWAY	RADIONUCLIDE
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Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
Cancer Risk:		mg/m ³	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m ³	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	1.4E-2	pCi/m ³
									DW:	2.7E+1	pCi/L
									FC:	7.7E+2	pCi/kg
									Soil Ing:	2.4E+5	pCi/kg
									Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER	HUMAN FOOD CHAIN	ENVIRONMENTAL
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Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Plutonium 242 (radionuclide)

CAS Number: 013982-10-0

TOXICITY				PHYSICAL CHARACTERISTICS			
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Parameter	Value	Unit	Source	Parameter	Value
Oral RfD:		mg/kg/day		Metal Contain:	Yes
Inhal RfD:		mg/kg/day		Organic:	No
Oral Slope:	Food: 1.65E-10	(pCi) ⁻¹	HEAST	Gas:	No
	Soil: 2.63E-10	(pCi) ⁻¹	HEAST	Particulate:	Yes
	Water: 1.28E-10	(pCi) ⁻¹	HEAST	Radionuclide:	Yes
Oral Wt-of-Evid:	A			Rad. Element:	No
Inhal Slope:	3.1E-8	(pCi) ⁻¹	HEAST	Molecular Weight:	2.4E+2
Inhal Wt-of-Evid:	A			Density:	g/mL @ C

Oral ED10:	mg/kg/day
Oral ED10 Wgt:	mg/kg/day

Inhal ED10:	mg/kg/day
Inhal ED10 Wgt:	mg/kg/day
Oral LD50:	mg/kg
Dermal LD50:	mg/kg
Gas Inhal LC50:	ppm
Dust Inhal LC50:	mg/L

ACUTE	
Fresh CMC:	µg/L
Salt CMC:	µg/L

CHRONIC	
Fresh CCC:	µg/L
Salt CCC:	µg/L

Fresh Ecol LC50:	µg/L
Salt Ecol LC50:	µg/L

PERSISTENCE			
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Parameter	Value	Unit	Source
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.4E+8	days	SSG-Rad

RIVER - Halflives	
Hydrolysis:	days
Volatility:	days
Photolysis:	days
Biodeg:	days
Radio:	1.4E+8

Log Kow:

MOBILITY			
Parameter	Value	Unit	Source
Vapor Press:		Torr	
Henry's Law:		atm-m ³ /mol	
Water Solub:		mg/L	
Distrib Coef:	4.5E+3	ml/g	BAES_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:			
Salt BCF:	7.8E+2		ECOTOX

ENVIRONMENTAL	
Fresh BCF:	
Salt BCF:	7.8E+2

Log Kow:	
Water Solub:	
Geo Mean Sol:	mg/L
Melting Point:	C
Boiling Point:	C
Formula:	Pu-242

OTHER DATA

CLASS INFORMATION

Class	Parent Substance
GW Mob:	007440-07-5
Other:	007440-07-5

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Plutonium 242 (radionuclide)

CAS Number: 013982-10-0

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	10000
Gas Mobility:	
Gas Migration:	

Parameter	Value
Toxicity:	30000
Water Solub:	
Distrib:	4.5E+3
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	
Non Karst:	

Parameter	Value
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	10000

Parameter	Value
Toxicity:	10000

Parameter	Value
Fresh Tox:	10000
Salt Tox:	10000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	500.0
Salt:	500.0

Bioaccumulation	
Fresh:	500.0
Salt:	500.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter	Value
NAAQS/NESHAPS:	$\mu\text{g}/\text{m}^3$
Cancer Risk:	mg/m3
Non Cancer Risk:	mg/m3

Parameter	Value
MCL/MCLG:	
Cancer Risk:	mg/L
Non Cancer Risk:	mg/L

Parameter	Value
mg/L	
mg/L	
mg/L	

Parameter	Value
Cancer Risk:	mg/kg
Non Cancer Risk:	mg/kg

Parameter	Value	Unit
MCL:	$1.5\text{E}+1$	pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:	1.5E-4	pCi/m3
DW:	3.7E-1	pCi/L
FC:	1.1E+1	pCi/kg
Soil Ing:	3.0E+3	pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
MCL/MCLG:	mg/L
Cancer Risk:	mg/L
Non Cancer Risk:	mg/L

Parameter	Value
FDAAL:	ppm
Cancer Risk:	mg/kg
Non Cancer Risk:	mg/kg

Parameter	Value
ACUTE	
Fresh CMC:	
Salt CMC:	

CHRONIC	
Fresh CCC:	$\mu\text{g}/\text{L}$
Salt CCC:	$\mu\text{g}/\text{L}$

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Plutonium 243 (radionuclide)

CAS Number: 015706-37-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	Food: 6.92E-13 Soil: 1.34E-12 Water: 4.74E-13	(pCi) ⁻¹	HEAST
Oral Wt-of-Evid:	A		
Inhal Slope:	2.9E-13	(pCi) ⁻¹	HEAST
Inhal Wt-of-Evid:	A		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L
Fresh Ecol LC50:	μg/L
Salt Ecol LC50:	μg/L

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.1E-1	days	SSG-Rad
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.1E-1	days	SSG-Rad

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Metal Contain:	Yes		
Organic:	No		
Gas:	No		
Particulate:	Yes		
Radionuclide:	Yes		
Rad. Element:	No		
Molecular Weight:	2.4E+2		
Density:		g/mL @ C	

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m ³ /mol	
Water Solub:		mg/L	
Distrib Coef:	4.5E+3	ml/g	BAES_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:	7.8E+2		ECOTOX

ENVIRONMENTAL

Fresh BCF:			
Salt BCF:	7.8E+2		ECOTOX

Log Kow:		
Water Solub:		
Geo Mean Sol:		mg/L

OTHER DATA

Melting Point:		C
Boiling Point:		C
Formula:	Pu-243	

CLASS INFORMATION

<u>Class</u>	<u>Parent Substance</u>
GW Mob:	007440-07-5
Other:	007440-07-5

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Plutonium 243 (radionuclide)

CAS Number: 015706-37-3

ASSIGNED FACTOR VALUES

AIR PATHWAY	GROUND WATER PATHWAY	SOIL EXPOSURE PATHWAY
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Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	100	Toxicity:	100	Toxicity:	100
Gas Mobility:		Water Solub:			
Gas Migration:		Distrib:	4.5E+3		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-4		
		Non Liq. Karst:			
		Non Karst:			

SURFACE WATER PATHWAY

DRINKING WATER	HUMAN FOOD CHAIN	ENVIRONMENTAL
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Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	100	Toxicity:	100	Fresh Tox:	100
				Salt Tox:	100
Persistence		Persistence		Persistence	
River:	0.0700	River:	0.0700	River:	0.0700
Lake:	0.0700	Lake:	0.0700	Lake:	0.0700
		Bioaccumulation		Bioaccumulation	
		Fresh:	500.0	Fresh:	500.0
		Salt:	500.0	Salt:	500.0

BENCHMARKS

AIR PATHWAY	GROUND WATER PATHWAY	SOIL EXPOSURE PATHWAY	RADIONUCLIDE
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Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m³	MCL/MCLG:		mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
Cancer Risk:		mg/m³	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m³	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	1.6E+1	pCi/m³
									DW:	1.0E+2	pCi/L
									FC:	2.5E+3	pCi/kg
									Soil Ing:	5.9E+5	pCi/kg
									Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER	HUMAN FOOD CHAIN	ENVIRONMENTAL
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Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Plutonium 244(+D) (radionuclide)

CAS Number: 014119-34-7

TOXICITY				PHYSICAL CHARACTERISTICS			
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TOXICITY				PHYSICAL CHARACTERISTICS			
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:	Food: 1.80E-10 Soil: 2.94E-10 Water: 1.37E-10	(pCi) ⁻¹	HEAST	Gas:	No		
Oral Wt-of-Evid:	A	(pCi) ⁻¹	HEAST	Particulate:	Yes		
Inhal Slope:	2.9E-8	(pCi) ⁻¹	HEAST	Radionuclide:	Yes		
Inhal Wt-of-Evid:	A			Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	2.4E+2		
Oral ED10 Wgt:				Density:	g/mL @ C		
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:		µg/L					
Salt Ecol LC50:		µg/L					

PERSISTENCE				BIOACCUMULATION			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives				FOOD CHAIN			
Hydrolysis:		days		Fresh BCF:			
Volatility:		days		Salt BCF:	7.8E+2		ECOTOX
Photolysis:		days					
Biodeg:		days					
Radio:	3.4E+10	days	SSG-Rad				
RIVER - Halflives							
Hydrolysis:		days		ENVIRONMENTAL			
Volatility:		days		Fresh BCF:			
Photolysis:		days		Salt BCF:	7.8E+2		ECOTOX
Biodeg:		days					
Radio:	3.4E+10	days	SSG-Rad				

Log Kow:

CLASS INFORMATION			
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Class	Parent Substance
GW Mob:	007440-07-5
Other:	007440-07-5

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Plutonium 244(+D) (radionuclide)

CAS Number: 014119-34-7

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:		Water Solub:			
Gas Migration:		Distrib:	4.5E+3		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-4		
		Non Liq. Karst:			
		Non Karst:			

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	10000
				Salt Tox:	10000
Persistence		Persistence		Persistence	
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	500.0	Fresh:	500.0
		Salt:	500.0	Salt:	500.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m³	MCL/MCLG:		mg/L	Cancer Risk:		mg/kg	MCL:	1.5E+1	pCi/L
Cancer Risk:		mg/m³	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m³	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	1.6E-4	pCi/m³
									DW:	3.5E-1	pCi/L
									FC:	9.8E+0	pCi/kg
									Soil Ing:	2.7E+3	pCi/kg
									Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Polychlorinated biphenyls (PCBs)

CAS Number: 001336-36-3

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	2.0E-5	mg/kg/day	LIVECHEM	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	2.0E+0	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:	3.5E-1	(mg/kg/day)^-1	IRIS	Radionuclide:	No		
Inhal Wt-of-Evid:	B2			Rad. Element:	No		
Oral ED10:	2.0E-2	mg/kg/day	EPA_ED10	Molecular Weight:			
Oral ED10 Wgt:	B2			Density:		g/mL @	C
Inhal ED10:	2.0E-2	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	B2						
Oral LD50:	1.9E+3	mg/kg	RTECS				
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L			MOBILITY		
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:	1.4E-2	N, aa	µg/L	Parameter	Value	Unit	Source
Salt CCC:	3.0E-2	N, aa	µg/L	Vapor Press:	4.9E-4	Torr	LIVECHEM
				Henry's Law:	2.6E-3	atm-m3/mol	LIVECHEM
				Water Solub:	7.0E-1	mg/L	CHEMFATE
				Distrib Coef:	5.9E+5	ml/g	DITOR_KD
				Geo Mean Sol:		mg/L	
PERSISTENCE							
Parameter	Value	Unit	Source	BIOACCUMULATION			
LAKE - Halflives							
Hydrolysis:		days		Parameter	Value	Unit	Source
Volatility:		days		FOOD CHAIN			
Photolysis:		days		Fresh BCF:	2.6E+4		ECOTOX
Biodeg:		days		Salt BCF:	1.8E+4		ECOTOX
Radio:		days		ENVIRONMENTAL			
RIVER - Halflives							
Hydrolysis:		days		Fresh BCF:	2.6E+4		ECOTOX
Volatility:		days		Salt BCF:	1.8E+4		ECOTOX
Photolysis:		days		OTHER DATA			
Biodeg:		days		Log Kow:	6.7E+0		CHEMFATE
Radio:		days		Water Solub:	7.0E-1		CHEMFATE
				Geo Mean Sol:		mg/L	
Log Kow:	6.7E+0		CHEMFATE	Melting Point:		C	
				Boiling Point:		C	
				Formula:	mixture		

CLASS INFORMATION

Class

Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Polychlorinated biphenyls (PCBs)

CAS Number: 001336-36-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	10000
Gas Mobility:	0.0200
Gas Migration:	11

Parameter	Value
Toxicity:	10000
Water Solub:	7.0E-1
Distrib:	5.9E+5
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	2.0E-3
Non Karst:	2.0E-7

Parameter	Value
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	10000

Parameter	Value
Toxicity:	10000

Parameter	Value
Fresh Tox:	10000
Salt Tox:	10000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:			MCL/MCLG:	5.0E-4	mg/L	Cancer Risk:	3.2E-1	mg/kg	MCL:		pCi/L
Cancer Risk:	2.4E-5	µg/m3	Cancer Risk:	4.3E-5	mg/L	Non Cancer Risk:	1.6E+0	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m3	Non Cancer Risk:	7.3E-4	mg/L				CANCER RISK		
									Air:		pCi/m3
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:	5.0E-4	mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:	4.3E-5	mg/L	Cancer Risk:	1.6E-3	mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:	7.3E-4	mg/L	Non Cancer Risk:	2.7E-2	mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:	1.4E-2 N, aa	µg/L
						Salt CCC:	3.0E-2 N, aa	µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Pyrene

CAS Number: 000129-00-0

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	3.0E-2	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wi-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	2.0E+2		
Oral ED10 Wgt:				Density:	1.3E+0	g/mL @ 23.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L			MOBILITY		
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	3.5E+1	µg/L	ECOTOX				
Salt Ecol LC50:	8.9E-1	µg/L	ECOTOX				
PERSISTENCE				BIOACCUMULATION			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days					
Volatility:	1.3E+2	days	THOMAS				
Photolysis:	2.8E-2	days	CHEMFATE				
Biodeg:	1.9E+3	days	FATERATE				
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	4.5E+0	days	THOMAS				
Photolysis:	2.8E-2	days	CHEMFATE				
Biodeg:	1.9E+3	days	FATERATE				
Radio:		days					
Log Kow:	4.9E+0		CHEMFATE				
CLASS INFORMATION							
Class				Parent Substance			

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Pyrene

CAS Number: 000129-00-0

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter	Value
Toxicity:	100
Gas Mobility:	0.0020
Gas Migration:	6

GROUND WATER PATHWAY

Parameter	Value
Toxicity:	100
Water Solub:	1.4E+0
Distrib:	9.5E+3
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	2.0E-1
Non Karst:	2.0E-5

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter	Value
Toxicity:	100

HUMAN FOOD CHAIN

Parameter	Value
Toxicity:	100

ENVIRONMENTAL

Parameter	Value
Fresh Tox:	10000
Salt Tox:	10000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	50000.0
Salt:	5000.0

Bioaccumulation	
Fresh:	50000.0
Salt:	5000.0

BENCHMARKS

AIR PATHWAY

Parameter	Value
NAAQS/NESHAPS:	$\mu\text{g}/\text{m}^3$
Cancer Risk:	mg/m^3
Non Cancer Risk:	mg/m^3

GROUND WATER PATHWAY

Parameter	Value
MCL/MCLG:	mg/L
Cancer Risk:	mg/L
Non Cancer Risk:	$1.1\text{E}+0$

SOIL EXPOSURE PATHWAY

Parameter	Value
Cancer Risk:	mg/kg
Non Cancer Risk:	$2.3\text{E}+3$

RADIONUCLIDE

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m^3
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter	Value
MCL/MCLG:	mg/L
Cancer Risk:	mg/L
Non Cancer Risk:	$1.1\text{E}+0$

HUMAN FOOD CHAIN

Parameter	Value
FDAAL:	ppm
Cancer Risk:	mg/kg
Non Cancer Risk:	$4.1\text{E}+1$

ENVIRONMENTAL

Parameter	Value	Unit
ACUTE		
Fresh CMC:		$\mu\text{g}/\text{L}$
Salt CMC:		$\mu\text{g}/\text{L}$
CHRONIC		
Fresh CCC:		$\mu\text{g}/\text{L}$
Salt CCC:		$\mu\text{g}/\text{L}$

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Radium

CAS Number: 007440-14-4

TOXICITY		PHYSICAL CHARACTERISTICS	
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>
Oral RfD:		mg/kg/day		Metal Contain:	Yes
Inhal RfD:		mg/kg/day		Organic:	No
Oral Slope:				Gas:	No
Oral Wt-of-Evid:				Particulate:	Yes
Inhal Slope:				Radionuclide:	No
Inhal Wt-of-Evid:				Rad. Element:	Yes
Oral ED10:		mg/kg/day		Molecular Weight:	2.3E+2
Oral ED10 Wgt:		mg/kg/day		Density:	5.0E+0 g/mL @ C
Inhal ED10:		mg/kg/day			
Inhal ED10 Wgt:		mg/kg/day			
Oral LD50:		mg/kg			
Dermal LD50:		mg/kg			
Gas Inhal LC50:		ppm			
Dust Inhal LC50:		mg/L			
ACUTE					
Fresh CMC:		μg/L			
Salt CMC:		μg/L			
CHRONIC					
Fresh CCC:		μg/L			
Salt CCC:		μg/L			
Fresh Ecol LC50:		μg/L			
Salt Ecol LC50:		μg/L			

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives				FOOD CHAIN			
Hydrolysis:		days		Fresh BCF:			
Volatility:		days		Salt BCF:			
Photolysis:		days					
Biodeg:		days					
Radio:		days					
RIVER - Halflives				ENVIRONMENTAL			
Hydrolysis:		days		Fresh BCF:			
Volatility:		days		Salt BCF:			
Photolysis:		days					
Biodeg:		days					
Radio:		days		Log Kow:			
Log Kow:				Water Solub:			
				Geo Mean Sol:	3.1E+5	mg/L	CALC

OTHER DATA			
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Melting Point:	7.0E+2	C
Boiling Point:	1.7E+3	C
Formula:	Ra	

CLASS INFORMATION	
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Class Parent Substance

REFERENCE 2

Page 303

SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
Chemical: Radium

CAS Number: 007440-14-4

HRS factor values are assigned to radioactive isotopes but not to radioactive elements. Data for a radioactive element is used to derive factor values for that element's isotopes.

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Radium 226(+D) (radionuclide)

CAS Number: 013982-63-3

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value		
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:	Food: 5.15E-10 Soil: 7.30E-10 Water: 3.86E-10	(pCi) ⁻¹	HEAST	Gas:	No		
Oral Wt-of-Evid:	A			Particulate:	Yes		
Inhal Slope:	1.2E-8	(pCi) ⁻¹	HEAST	Radionuclide:	Yes		
Inhal Wt-of-Evid:	A			Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	2.3E+2		
Oral ED10 Wgt:				Density:	5.5E+0	g/mL @	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L		Parameter	Value	Unit	Source
Salt CMC:		µg/L		Vapor Press:		Torr	
CHRONIC							
Fresh CCC:		µg/L		Henry's Law:		atm-m ³ /mol	
Salt CCC:		µg/L		Water Solub:		mg/L	
Fresh Ecol LC50:							
Fresh Ecol LC50:		µg/L		Distrib Coef:	4.5E+2	ml/g	BAES_KD
Salt Ecol LC50:		µg/L		Geo Mean Sol:	3.1E+5	mg/L	CALC
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives				Vapor Press:		Torr	
Hydrolysis:		days		Henry's Law:		atm-m ³ /mol	
Volatility:		days		Water Solub:		mg/L	
Photolysis:		days		Distrib Coef:		ml/g	
Biodeg:		days		Geo Mean Sol:		mg/L	
Radio:	5.8E+5	days	SSG-Rad	Log Kow:			
RIVER - Halflives				Water Solub:			
Hydrolysis:		days		Geo Mean Sol:	3.1E+5	mg/L	CALC
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:	5.8E+5	days	SSG-Rad				
Log Kow:				OTHER DATA			
				Melting Point:	7.0E+2	C	
				Boiling Point:	1.7E+3	C	
				Formula:	Ra-226(+D)		
CLASS INFORMATION							
Class		Parent Substance					
GW Mob:		007440-14-4					
Other:		007440-14-4					

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Radium 226(+D) (radionuclide)

CAS Number: 013982-63-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
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Toxicity:	10000
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Gas Mobility:	
---------------	--

Gas Migration:	
----------------	--

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity:	10000
-----------	-------

Water Solub:	
--------------	--

Distrib:	4.5E+2
----------	--------

Geo Mean Sol:	3.1E+5
---------------	--------

Mobility:	
-----------	--

Liquid Karst:	1.0E+0
---------------	--------

Non Karst:	1.0E-2
------------	--------

Non Liq. Karst:	1.0E+0
-----------------	--------

Non Karst:	1.0E-2
------------	--------

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity:	10000
-----------	-------

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity:	10000
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<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity:	10000
-----------	-------

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Fresh Tox:	10000
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Persistence River:	1.0000
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River:	1.0000
--------	--------

Persistence River:	1.0000
-----------------------	--------

River:	1.0000
--------	--------

Persistence River:	1.0000
-----------------------	--------

River:	1.0000
--------	--------

Bioaccumulation	
-----------------	--

Fresh:	0.5
--------	-----

Salt:	0.5
-------	-----

Bioaccumulation	
-----------------	--

Fresh:	0.5
--------	-----

Salt:	0.5
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BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>
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NAAQS/NESHAPS:	µg/m ³
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Cancer Risk:	mg/m ³
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Non Cancer Risk:	mg/m ³
------------------	-------------------

<u>Unit</u>	
-------------	--

µg/m ³	
-------------------	--

MCL/MCLG:	
-----------	--

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Cancer Risk:	mg/L
--------------	------

Non Cancer Risk:	mg/L
------------------	------

<u>Unit</u>	
-------------	--

mg/L	
------	--

Cancer Risk:	
--------------	--

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Cancer Risk:	mg/kg
--------------	-------

Non Cancer Risk:	mg/L
------------------	------

<u>Unit</u>	
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mg/kg	
-------	--

MCL:	
------	--

UMTRCA:	
---------	--

<u>Parameter</u>	<u>Value</u>
------------------	--------------

MCL:	5.0E+0
------	--------

UMTRCA:	
---------	--

<u>Unit</u>	
-------------	--

pCi/L	
-------	--

pCi/kg	
--------	--

Air:	4.1E-4	pCi/m ³
DW:	1.2E-1	pCi/L
FC:	3.4E+0	pCi/kg
Soil Ing:	1.1E+3	pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
------------------	--------------

MCL/MCLG:	mg/L
-----------	------

Cancer Risk:	mg/L
--------------	------

Non Cancer Risk:	mg/L
------------------	------

<u>Parameter</u>	<u>Value</u>
------------------	--------------

FDAAL:	ppm
--------	-----

Cancer Risk:	mg/kg
--------------	-------

Non Cancer Risk:	mg/kg
------------------	-------

<u>Parameter</u>	<u>Value</u>
------------------	--------------

ACUTE	
-------	--

Fresh CMC:	
------------	--

Salt CMC:	
-----------	--

<u>Parameter</u>	<u>Value</u>
------------------	--------------

ACUTE	
-------	--

Fresh CMC:	
------------	--

Salt CMC:	
-----------	--

<u>Unit</u>	
-------------	--

µg/L	
------	--

µg/L	
------	--

µg/L	
------	--

CHRONIC

Fresh CCC:	
------------	--

Salt CCC:	
-----------	--

µg/L	
------	--

µg/L	
------	--

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Radium 228(+D) (radionuclide)

CAS Number: 015262-20-1

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	Food: 1.43E-09 Soil: 2.28E-09 Water: 1.04E-09	(pCi) ⁻¹	HEAST
Oral Wt-of-Evid:	A		
Inhal Slope:	5.2E-9	(pCi) ⁻¹	HEAST
Inhal Wt-of-Evid:	A		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	

ACUTE
Fresh CMC:
Salt CMC:

μg/L
μg/L

CHRONIC
Fresh CCC:
Salt CCC:

μg/L
μg/L

Fresh Ecol LC50:
Salt Ecol LC50:

μg/L
μg/L

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.9E+3	days	SSG-Rad
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.9E+3	days	SSG-Rad

Log Kow:

CLASS INFORMATION

<u>Class</u>	<u>Parent Substance</u>
GW Mob:	007440-14-4
Other:	007440-14-4

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Metal Contain:	Yes		
Organic:	No		
Gas:	No		
Particulate:	Yes		
Radionuclide:	Yes		
Rad. Element:	No		
Molecular Weight:	2.3E+2		
Density:	5.5E+0	g/mL @ C	

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m ³ /mol	
Water Solub:		mg/L	
Distrib Coef:	4.5E+2	ml/g	BAES_KD
Geo Mean Sol:	3.1E+5	mg/L	CALC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:
Salt BCF:

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Log Kow:			
Water Solub:			
Geo Mean Sol:	3.1E+5	mg/L	CALC

OTHER DATA

Melting Point:	7.0E+2	C
Boiling Point:	1.7E+3	C
Formula:	Ra-228(+D)	

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Radium 228(+D) (radionuclide)

CAS Number: 015262-20-1

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter Value

Toxicity: 10000

Gas Mobility:

Gas Migration:

Parameter Value

Toxicity: 10000

Water Solub:

Distrib: 4.5E+2

Geo Mean Sol: 3.1E+5

Mobility:

Liquid Karst: 1.0E+0

Non Karst: 1.0E-2

Non Liq. Karst: 1.0E+0

Non Karst: 1.0E-2

Parameter Value

Toxicity: 10000

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value

Toxicity: 10000

Parameter Value

Toxicity: 10000

Parameter Value

Fresh Tox: 10000

Salt Tox: 10000

Persistence

River: 1.0000

Lake: 1.0000

Persistence

River: 1.0000

Lake: 1.0000

Persistence

River: 1.0000

Lake: 1.0000

Bioaccumulation

Fresh: 0.5

Salt: 0.5

Bioaccumulation

Fresh: 0.5

Salt: 0.5

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter Value

NAAQS/NESHAPS: Unit

Unit

µg/m³

Parameter Value

MCL/MCLG:

Unit

mg/L

Parameter Value

Cancer Risk:

Unit

mg/kg

Parameter

MCL:

Value

5.0E+0

Unit

pCi/L

Cancer Risk:

mg/m³

Parameter

Cancer Risk:

Unit

mg/L

Parameter

Non Cancer Risk:

Unit

mg/kg

Parameter

UMTRCA:

Value

CANCER RISK

Unit

pCi/kg

Non Cancer Risk:

mg/m³

Parameter

Non Cancer Risk:

Unit

mg/L

Parameter

Air:

Value

9.1E-4

Unit

pCi/m³

Parameter

DW:

Value

4.6E-2

Unit

pCi/L

Parameter

FC:

Value

1.2E+0

Unit

pCi/kg

Parameter

Soil Ing:

Value

3.5E+2

Unit

pCi/kg

Parameter

Soil Gam:

Value

0.5

Unit

pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value

MCL/MCLG:

Unit

mg/L

Parameter Value

FDAAL:

Unit

ppm

Parameter

ACUTE

Value

Unit

Cancer Risk:

mg/L

Parameter

Cancer Risk:

Unit

mg/kg

Parameter

Fresh CMC:

Value

Unit

Non Cancer Risk:

mg/L

Parameter

Non Cancer Risk:

Unit

mg/kg

Parameter

Salt CMC:

Value

Unit

CHRONIC

Fresh CCC:

Unit

Salt CCC:

Unit

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Radon

CAS Number: 010043-92-2

TOXICITY		PHYSICAL CHARACTERISTICS	
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>
Oral RfD:		mg/kg/day		Metal Contain:	No
Inhal RfD:		mg/kg/day		Organic:	No
Oral Slope:				Gas:	Yes
Oral Wt-of-Evid:				Particulate:	No
Inhal Slope:				Radionuclide:	No
Inhal Wt-of-Evid:				Rad. Element:	Yes
Oral ED10:		mg/kg/day		Molecular Weight:	2.2E+2
Oral ED10 Wgt:				Density:	9.1E+0 g/L @
Inhal ED10:		mg/kg/day			
Inhal ED10 Wgt:					
Oral LD50:		mg/kg			
Dermal LD50:		mg/kg			
Gas Inhal LC50:		ppm			
Dust Inhal LC50:		mg/L			
ACUTE					
Fresh CMC:		µg/L			
Salt CMC:		µg/L			
CHRONIC					
Fresh CCC:		µg/L			
Salt CCC:		µg/L			
Fresh Ecol LC50:		µg/L			
Salt Ecol LC50:		µg/L			

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives				FOOD CHAIN			
Hydrolysis:		days		Fresh BCF:			
Volatility:		days		Salt BCF:			
Photolysis:		days					
Biodeg:		days					
Radio:		days					
RIVER - Halflives				ENVIRONMENTAL			
Hydrolysis:		days		Fresh BCF:			
Volatility:		days		Salt BCF:			
Photolysis:		days					
Biodeg:		days					
Radio:		days		Log Kow:	1.5E+0		PHYSPROP
Log Kow:	1.5E+0			Water Solub:	2.2E+3	mg/L	LIVECHEM
				Geo Mean Sol:			

OTHER DATA		
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Melting Point:	-7.1E+1	C
Boiling Point:	-6.2E+1	C
Formula:	Rn	

CLASS INFORMATION	
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Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
Chemical: Radon

CAS Number: 010043-92-2

HRS factor values are assigned to radioactive isotopes but not to radioactive elements. Data for a radioactive element is used to derive factor values for that element's isotopes.

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Radon 222 (+D)(radionuclide)

CAS Number: 014859-67-7

TOXICITY				PHYSICAL CHARACTERISTICS			
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Parameter	Value	Unit	Source	Parameter	Value
Oral RfD:		mg/kg/day		Metal Contain:	No
Inhal RfD:		mg/kg/day		Organic:	No
Oral Slope:	Food: Soil: Water:	(pCi) ⁻¹ (pCi) ⁻¹ (pCi) ⁻¹	HEAST HEAST HEAST	Gas:	Yes
Oral Wt-of-Evid:	A			Particulate:	No
Inhal Slope:	7.6E-12	(pCi) ⁻¹	HEAST	Radionuclide:	Yes
Inhal Wt-of-Evid:	A			Rad. Element:	No
Oral ED10:		mg/kg/day		Molecular Weight:	2.2E+2
Oral ED10 Wgt:				Density:	9.7E-3 g/mL @ C
Inhal ED10:		mg/kg/day			
Inhal ED10 Wgt:					
Oral LD50:		mg/kg			
Dermal LD50:		mg/kg			
Gas Inhal LC50:		ppm			
Dust Inhal LC50:		mg/L			

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L

Fresh Ecol LC50:	μg/L
Salt Ecol LC50:	μg/L

PERSISTENCE

Parameter	Value	Unit	Source
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	3.8E+0	days	ICRP38
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	3.8E+0	days	ICRP38

Log Kow:

MOBILITY

Parameter	Value	Unit	Source
Vapor Press:	7.6E+2	Torr	LIVECHEM
Henry's Law:		atm-m ³ /mol	
Water Solub:	2.2E+3	mg/L	LIVECHEM
Distrib Coef:	9.9E+0	ml/g	DITOR_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:	
Salt BCF:	

Log Kow:			
Water Solub:	2.2E+3		LIVECHEM
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-7.1E+1	C
Boiling Point:	-6.2E+1	C
Formula:	Rn-222(+D)	

CLASS INFORMATION

Class	Parent Substance
GW Mob:	010043-92-2

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Radon 222 (+D)(radionuclide)

CAS Number: 014859-67-7

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000
Gas Mobility:	1.0000
Gas Migration:	17

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000
Water Solub:	2.2E+3
Distrib:	9.9E+0
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E+0

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000

<u>Parameter</u>	<u>Value</u>
Toxicity:	1000

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	1000
Salt Tox:	1000

Persistence	
River:	1.0000
Lake:	0.4000

Persistence	
River:	1.0000
Lake:	0.4000

Persistence	
River:	1.0000
Lake:	0.4000

Bioaccumulation

Fresh:	0.5
Salt:	0.5

Bioaccumulation

Fresh:	0.5
Salt:	0.5

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:	µg/m ³
Cancer Risk:	mg/m ³
Non Cancer Risk:	mg/m ³

<u>Parameter</u>	<u>Unit</u>
MCL/MCLG:	µg/m ³
Cancer Risk:	mg/L
Non Cancer Risk:	mg/L

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	mg/L
Cancer Risk:	mg/L
Non Cancer Risk:	mg/L

<u>Parameter</u>	<u>Value</u>
Cancer Risk:	mg/kg
Non Cancer Risk:	mg/kg

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:	6.3E-1	pCi/m ³
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	mg/L
Cancer Risk:	mg/L
Non Cancer Risk:	mg/L

<u>Parameter</u>	<u>Value</u>
FDAAL:	
Cancer Risk:	
Non Cancer Risk:	

<u>Parameter</u>	<u>Value</u>
ACUTE	
Fresh CMC:	
Salt CMC:	

CHRONIC	
Fresh CCC:	
Salt CCC:	

<u>Unit</u>	<u>µg/L</u>

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Selenium

CAS Number: 007782-49-2

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	5.0E-3	mg/kg/day	IRIS	Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:		(mg/kg/day)^-1		Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	7.9E+1		
Oral ED10 Wgt:				Density:	4.8E+0	g/mL @ 20.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	4.8E+0	mg/kg	ACGIH				
Dermal LD50:	7.8E+1	mg/kg	ACGIH				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:	8.3E-1	mg/L	ACGIH				
ACUTE							
Fresh CMC:		L, R, T					
Salt CMC:	2.9E+2	D, bb, dd	μg/L	WATCRIT			
			μg/L	WATCRIT			
CHRONIC							
Fresh CCC:	5.0E+0	T	μg/L	WATCRIT			
Salt CCC:	7.1E+1	D, bb, dd	μg/L	WATCRIT			
Fresh Ecol LC50:	2.6E+2		μg/L	ECOTOX			
Salt Ecol LC50:	6.0E+2		μg/L	ECOTOX			
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		Vapor Press:			
Volatility:		days		Henry's Law:	9.7E-3	Torr	PHYSPROP
Photolysis:		days		Water Solub:		atm-m3/mol	
Biodeg:		days		Distrib Coef:	5.0E+0	ml/g	SSG_KD
Radio:		days		Geo Mean Sol:	2.6E+6	mg/L	CALC
RIVER - Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:		days					
Log Kow:	2.4E-1						
CLASS INFORMATION				BIOACCUMULATION			
Class	Parent Substance			Parameter	Value	Unit	Source
				FOOD CHAIN			
				Fresh BCF:	6.2E+1		ECOTOX
				Salt BCF:	9.0E+2		ECOTOX
				ENVIRONMENTAL			
				Fresh BCF:	3.2E+2		ECOTOX
				Salt BCF:	9.0E+2		ECOTOX
				Log Kow:	2.4E-1		PHYSPROP
				Water Solub:			
				Geo Mean Sol:	2.6E+6	mg/L	CALC
OTHER DATA							
				Melting Point:	2.2E+2	C	
				Boiling Point:	6.9E+2	C	
				Formula:	Se		

REFERENCE 2

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Date: 1/28/2004
 Chemical: Selenium

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 007782-49-2

ASSIGNED FACTOR VALUES

AIR PATHWAY

<u>Parameter</u>	<u>Value</u>
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Toxicity: 100
 Gas Mobility:
 Gas Migration:

GROUND WATER PATHWAY

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity: 100
 Water Solub:
 Distrib: 5.0E+0
 Geo Mean Sol: 2.6E+6
 Mobility:
 Liquid Karst: 1.0E+0
 Non Karst: 1.0E+0
 Non Liq. Karst: 1.0E+0
 Non Karst: 1.0E+0

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity: 100

HUMAN FOOD CHAIN

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity: 100

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Fresh Tox: 1000

Salt Tox: 100

Persistence
 River: 1.0000
 Lake: 1.0000

Persistence
 River: 1.0000
 Lake: 1.0000

Persistence
 River: 1.0000
 Lake: 1.0000

Bioaccumulation

Fresh: 50.0
 Salt: 500.0

Bioaccumulation
 Fresh: 500.0
 Salt: 500.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>
------------------	--------------

NAAQS/NESHAPS: 5.0×10^{-2}

Unit

$\mu\text{g}/\text{m}^3$

<u>Parameter</u>	<u>Value</u>
------------------	--------------

MCL/MCLG:

5.0×10^{-2}

Unit

mg/L

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Cancer Risk:

3.9×10^{-2}

Unit

mg/kg

<u>Parameter</u>	<u>Value</u>
------------------	--------------

MCL:

2.9×10^{-2}

Unit

pCi/L

Cancer Risk:

mg/m^3

Cancer Risk:

1.8×10^{-1}

Unit

mg/L

Non Cancer Risk:

1.8×10^{-1}

Unit

mg/kg

UMTRCA:

CANCER RISK

Unit

pCi/kg

Non Cancer Risk:

Air:

pCi/m³

DW:

pCi/L

FC:

pCi/kg

Soil Ing:

pCi/kg

Soil Gam:

pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
------------------	--------------

MCL/MCLG: 5.0×10^{-2}

Unit

mg/L

<u>Parameter</u>	<u>Value</u>
------------------	--------------

FDAAL:

<u>Parameter</u>	<u>Value</u>
------------------	--------------

ppm

<u>Parameter</u>	<u>Value</u>
------------------	--------------

ACUTE

L, R, T

Cancer Risk:

Fresh CMC: L, R, T

Non Cancer Risk: 1.8×10^{-1}

Salt CMC: 2.9×10^{-2} D, bb, dd

mg/L

Cancer Risk:

CHRONIC

Non Cancer Risk: 6.8×10^{-1}

Fresh CCC: 5.0×10^{-1} T

mg/L

Non Cancer Risk:

Salt CCC: 7.1×10^{-1} D, bb, dd

1.8×10^{-1}

mg/L

$\mu\text{g}/\text{L}$

$\mu\text{g}/\text{L}$

$\mu\text{g}/\text{L}$

$\mu\text{g}/\text{L}$

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Silver

CAS Number: 007440-22-4

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	5.0E-3	mg/kg/day	IRIS	Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:		(mg/kg/day)^-1		Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radiouclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.1E+2		
Oral ED10 Wgt:				Density:	1.1E+1	g/mL @ 20.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	5.0E+1	mg/kg	ACGIH				
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:	3.2E+0	D, E, G	μg/L	WATCRIT			
Salt CMC:	1.9E+0	D, G	μg/L	WATCRIT			
CHRONIC							
Fresh CCC:			μg/L				
Salt CCC:			μg/L				
Fresh Ecol LC50:	1.6E+0	μg/L	ECOTOX				
Salt Ecol LC50:	1.0E+1	μg/L	ECOTOX				
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		Vapor Press:		Torr	
Volatility:		days		Henry's Law:		atm-m3/mol	
Photolysis:		days		Water Solub:		mg/L	
Biodeg:		days		Distrib Coef:	8.3E+0	ml/g	SSG_KD
Radio:		days		Geo Mean Sol:	2.5E+2	mg/L	CALC
RIVER - Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:		days					
Log Kow:	2.3E-1		PHYSPROP				
CLASS INFORMATION							
Class	Parent Substance						

REFERENCE 2

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Date: 1/28/2004
 Chemical: Silver

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 007440-22-4

ASSIGNED FACTOR VALUES

AIR PATHWAY	GROUND WATER PATHWAY	SOIL EXPOSURE PATHWAY
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Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	100	Toxicity:	100	Toxicity:	100
Gas Mobility:		Water Solub:			
Gas Migration:		Distrib:	8.3E+0		
		Geo Mean Sol:	2.5E+2		
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	100	Toxicity:	100	Fresh Tox:	10000
Persistence		Persistence		Salt Tox:	10000
River:	1.0000	River:	1.0000	Persistence	
Lake:	1.0000	Lake:	1.0000	River:	1.0000
		Bioaccumulation		Lake:	1.0000
		Fresh:	50.0	Bioaccumulation	
		Salt:	50000.0	Fresh:	50.0
				Salt:	50000.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:	
Cancer Risk:		mg/m ³	Cancer Risk:		mg/L	Non Cancer Risk:	3.9E+2
Non Cancer Risk:		mg/m ³	Non Cancer Risk:	1.8E-1	mg/L		
						MCL:	
						mg/kg	
						UMTRCA:	
						CANCER RISK	
						Air:	pCi/m ³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gnm:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAL:		ppm
Cancer Risk:		mg/L	Cancer Risk:		mg/kg
Non Cancer Risk:	1.8E-1	mg/L	Non Cancer Risk:	6.8E+0	mg/kg
					ACUTE
					Fresh CMC:
					3.2E+0 D, E, G
					Salt CMC:
					1.9E+0 D, G
					CHRONIC
					Fresh CCC:
					µg/L
					Salt CCC:
					µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Silver 108m(+D) (radionuclide)

CAS Number: 014391-65-2

TOXICITY				PHYSICAL CHARACTERISTICS			
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Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:	Food: 1.12E-11 Soil: 1.92E-11 Water: 8.14E-12	(pCi) ⁻¹	HEAST	Gas:	No		
Oral Wt-of-Evid:	A			Particulate:	Yes		
Inhal Slope:	2.7E-11	(pCi) ⁻¹	HEAST	Radionuclide:	Yes		
Inhal Wt-of-Evid:	A			Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.1E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	1.0E+1	g/mL @ 20.00 C	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L		Parameter	Value	Unit	Source
Salt CMC:		µg/L		Vapor Press:		Torr	
CHRONIC							
Fresh CCC:		µg/L		Henry's Law:		atm-m ³ /mol	
Salt CCC:		µg/L		Water Solub:		mg/L	
Fresh Ecol LC50:		µg/L		Distrib Coef:	8.3E+0	ml/g	SSG_KD
Salt Ecol LC50:		µg/L		Geo Mean Sol:	2.5E+2	mg/L	CALC

PERSISTENCE			
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Parameter	Value	Unit	Source
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	4.6E+4	days	SSG-Rad
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	4.6E+4	days	SSG-Rad
Log Kow:	2.3E-1		PHYSPROP

MOBILITY			
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Parameter	Value	Unit	Source
Vapor Press:		Torr	
Henry's Law:		atm-m ³ /mol	
Water Solub:		mg/L	
Distrib Coef:	8.3E+0	ml/g	SSG_KD
Geo Mean Sol:	2.5E+2	mg/L	CALC

BIOACCUMULATION			
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FOOD CHAIN			
Fresh BCF:	2.8E+1		VER_BCF
Salt BCF:	3.9E+5		ECOTOX

ENVIRONMENTAL			
Fresh BCF:	2.8E+1		VER_BCF
Salt BCF:	3.9E+5		ECOTOX

OTHER DATA			
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Melting Point:	9.6E+2	C
Boiling Point:	2.2E+3	C
Formula:	Ag-108m(+D)	

CLASS INFORMATION

Class	Parent Substance
GW Mob:	007440-22-4
Other:	007440-22-4

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Silver 108m(+D) (radionuclide)

CAS Number: 014391-65-2

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter	Value
Toxicity:	1000
Gas Mobility:	
Gas Migration:	

GROUND WATER PATHWAY

Parameter	Value
Toxicity:	1000
Water Solub:	
Distrib:	8.3E+0
Geo Mean Sol:	2.5E+2
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E+0

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	1000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter	Value
Toxicity:	1000

HUMAN FOOD CHAIN

Parameter	Value
Toxicity:	1000

ENVIRONMENTAL

Parameter	Value
Fresh Tox:	1000
Salt Tox:	1000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	50.0
Salt:	50000.0

Bioaccumulation	
Fresh:	50.0
Salt:	50000.0

BENCHMARKS

AIR PATHWAY

Parameter	Value
NAAQS/NESHAPS:	<u>µg/m³</u>
Cancer Risk:	<u>mg/m³</u>
Non Cancer Risk:	<u>mg/m³</u>

GROUND WATER PATHWAY

Parameter	Value
MCL/MCLG:	<u>mg/L</u>
Cancer Risk:	<u>mg/L</u>
Non Cancer Risk:	<u>mg/L</u>

SOIL EXPOSURE PATHWAY

Parameter	Value
Unit	
Cancer Risk:	<u>mg/kg</u>
Non Cancer Risk:	<u>mg/kg</u>

RADIOMUCLIDE

Parameter	Value	Unit
MCL:		<u>pCi/L</u>
UMTRCA:		<u>pCi/kg</u>
CANCER RISK		
Air:	1.8E-1	<u>pCi/m³</u>
DW:	5.8E+0	<u>pCi/L</u>
FC:	1.6E+2	<u>pCi/kg</u>
Soil Ing:	4.1E+4	<u>pCi/kg</u>
Soil Gam:		<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER

Parameter	Value
MCL/MCLG:	<u>mg/L</u>
Cancer Risk:	<u>mg/L</u>
Non Cancer Risk:	<u>mg/L</u>

HUMAN FOOD CHAIN

Parameter	Value
FDAAL:	<u>ppm</u>
Cancer Risk:	<u>mg/kg</u>
Non Cancer Risk:	<u>mg/kg</u>

ENVIRONMENTAL

Parameter	Value	Unit
ACUTE		
Fresh CMC:		<u>µg/L</u>
Salt CMC:		<u>µg/L</u>
CHRONIC		
Fresh CCC:		<u>µg/L</u>
Salt CCC:		<u>µg/L</u>

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Silver 110m (radionuclide)

CAS Number: 014391-76-5

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:	Food: 1.37E-11 Soil: 2.37E-11 Water: 9.88E-12	(pCi)~1	HEAST	Gas:	No		
Oral Wt-of-Evid:	A	(pCi)~1	HEAST	Particulate:	Yes		
Inhal Slope:	2.8E-11	(pCi)~1	HEAST	Radionuclide:	Yes		
Inhal Wt-of-Evid:	A			Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.1E+2		
Oral ED10 Wgt:				Density:	1.0E+1	g/mL @ 20.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L		Parameter	Value	Unit	Source
Salt CMC:		µg/L		Vapor Press:		Torr	
CHRONIC							
Fresh CCC:		µg/L		Henry's Law:		atm-m3/mol	
Salt CCC:		µg/L		Water Solub:		mg/L	
Fresh Ecol LC50:		µg/L		Distrib Coef:	8.3E+0	ml/g	SSG_KD
Salt Ecol LC50:		µg/L		Geo Mean Sol:	2.5E+2	mg/L	CALC
PERSISTENCE							
Parameter	Value	Unit	Source	BIOACCUMULATION			
LAKE - Halflives				Parameter	Value	Unit	Source
Hydrolysis:		days		FOOD CHAIN			
Volatility:		days		Fresh BCF:	2.8E+1		VER_BCF
Photolysis:		days		Salt BCF:	3.9E+5		ECOTOX
Biodeg:		days		ENVIRONMENTAL			
Radio:	2.6E+2	days	SSG-Rad	Fresh BCF:	2.8E+1		VER_BCF
RIVER - Halflives				Salt BCF:	3.9E+5		ECOTOX
Hydrolysis:		days		Log Kow:	2.3E-1		PHYSPROP
Volatility:		days		Water Solub:			
Photolysis:		days		Geo Mean Sol:	2.5E+2	mg/L	CALC
Biodeg:		days		OTHER DATA			
Radio:	2.6E+2	days	SSG-Rad	Melting Point:	9.6E+2	C	
Log Kow:	2.3E-1		PHYSPROP	Boiling Point:	2.2E+3	C	
				Formula:	Ag-110m		
CLASS INFORMATION							
Class				Parent Substance			
GW Mob:				007440-22-4			
Other:				007440-22-4			

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Silver 110m (radionuclide)

CAS Number: 014391-76-5

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	1000	Toxicity:	1000	Toxicity:	1000
Gas Mobility:		Water Solub:		Fresh Tox:	
Gas Migration:		Distrib:	8.3E+0	Salt Tox:	
		Geo Mean Sol:	2.5E+2		
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	1000	Toxicity:	1000	Fresh Tox:	1000
Persistence		Persistence		Salt Tox:	1000
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	50.0	Fresh:	50.0
		Salt:	50000.0	Salt:	50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:		mg/kg	MCL:	9.0E+1	pCi/L
Cancer Risk:		mg/m ³	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m ³	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	1.7E-1	pCi/m ³
									DW:	4.8E+0	pCi/L
									FC:	1.3E+2	pCi/kg
									Soil Ing:	3.4E+4	pCi/kg
									Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Strontium

CAS Number: 007440-24-6

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>		
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:				Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:				Radiionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	Yes		
Oral ED10:		mg/kg/day		Molecular Weight:	8.8E+1		
Oral ED10 Wgt:		mg/kg/day		Density:	2.6E+0	g/mL @	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L

Fresh Ecol LC50:	μg/L
Salt Ecol LC50:	μg/L

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
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LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	

RIVER - Halflives

Hydrolysis:	days
Volatility:	days
Photolysis:	days
Biodeg:	days
Radio:	days

Log Kow: 2.3E-1

PHYSPROP

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>		
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:				Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:				Radiionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	Yes		
Oral ED10:		mg/kg/day		Molecular Weight:	8.8E+1		
Oral ED10 Wgt:		mg/kg/day		Density:	2.6E+0	g/mL @	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	3.5E+1	ml/g	BAES_KD
Geo Mean Sol:	5.8E+2	mg/L	CALC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:			PHYSPROP
Salt BCF:			
Log Kow:	2.3E-1		
Water Solub:			
Geo Mean Sol:	5.8E+2	mg/L	CALC

OTHER DATA

Melting Point:	7.8E+2	C
Boiling Point:	1.4E+3	C
Formula:	Sr	

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
Chemical: Strontium

CAS Number: 007440-24-6

HRS factor values are assigned to radioactive isotopes but not to radioactive elements. Data for a radioactive element is used to derive factor values for that element's isotopes.

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Strontium 90(+D) (radionuclide)

CAS Number: 010098-97-2

TOXICITY				PHYSICAL CHARACTERISTICS			
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Parameter	Value	Unit	Source	Parameter	Value
Oral RfD:		mg/kg/day		Metal Contain:	Yes
Inhal RfD:		mg/kg/day		Organic:	No
Oral Slope:	Food: 9.53E-11 Soil: 1.44E-10 Water: 7.40E-11	(pCi) ⁻¹	HEAST	Gas:	No
Oral Wt-of-Evid:	A	(pCi) ⁻¹	HEAST	Particulate:	Yes
Inhal Slope:	1.1E-10	(pCi) ⁻¹	HEAST	Radionuclide:	Yes
Inhal Wt-of-Evid:	A			Rad. Element:	No
Oral ED10:		mg/kg/day		Molecular Weight:	9.0E+2
Oral ED10 Wgt:				Density:	@

Oral ED10:		mg/kg/day
Inhal ED10:		mg/kg/day
Inhal ED10 Wgt:		
Oral LD50:		mg/kg
Dermal LD50:		mg/kg
Gas Inhal LC50:		ppm
Dust Inhal LC50:		mg/L

ACUTE		
Fresh CMC:		µg/L
Salt CMC:		µg/L

CHRONIC		
Fresh CCC:		µg/L
Salt CCC:		µg/L
Fresh Ecol LC50:		µg/L
Salt Ecol LC50:		µg/L

PERSISTENCE			
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Parameter	Value	Unit	Source
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.1E+4	days	SSG-Rad

RIVER - Halflives		
Hydrolysis:		days
Volatility:		days
Photolysis:		days
Biodeg:		days
Radio:	1.1E+4	days

Log Kow: 2.3E-1 PHYSPROP

MOBILITY

Parameter	Value	Unit	Source
Vapor Press:		Torr	
Henry's Law:		atm-m ³ /mol	
Water Solub:		mg/L	
Distrib Coef:	3.5E+1	ml/g	BAES_KD
Geo Mean Sol:	5.8E+2	mg/L	CALC

BIOACCUMULATION

Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:	9.5E+0		ECOTOX
Salt BCF:	1.0E+0		ECOTOX

ENVIRONMENTAL

Fresh BCF:	9.5E+0		ECOTOX
Salt BCF:	1.0E+0		ECOTOX

Log Kow:	2.3E-1		PHYSPROP
Water Solub:			
Geo Mean Sol:	5.8E+2	mg/L	CALC

OTHER DATA

Melting Point:
Boiling Point:
Formula: Sr-90 (+D)

CLASS INFORMATION

Class	Parent Substance
GW Mob:	007440-24-6
Other:	007440-24-6

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Strontium 90(+D) (radionuclide)

CAS Number: 010098-97-2

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:		Water Solub:			
Gas Migration:		Distrib:	3.5E+1		
		Geo Mean Sol:	5.8E+2		
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-2		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E-2		

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	10000
Persistence		Persistence		Salt Tox:	10000
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	5.0	Fresh:	5.0
		Salt:	5.0	Salt:	5.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:		mg/kg	MCL:	8.0E+0	pCi/L
Cancer Risk:		mg/m ³	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m ³	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:	4.2E-2	pCi/m ³
									DW:	6.4E-1	pCi/L
									FC:	1.8E+1	pCi/kg
									Soil Ing:	5.5E+3	pCi/kg
									Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Styrene

CAS Number: 000100-42-5

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	2.0E-1	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:	2.9E-1	mg/kg/day	IRIS	Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	No		
Inhal Slope:		(mg/kg/day)^-1		Radiouclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.0E+2		
Oral ED10 Wgt:				Density:	9.1E-1	g/mL @ 20.00 C	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	5.0E+3	mg/kg	ACGIH				
Dermal LD50:		mg/kg					
Gas Inhal LC50:	2.8E+3	ppm	ACGIH				
Dust Inhal LC50:	1.0E+4	mg/L	RTECS				
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	1.8E+3	µg/L	ECOTOX				
Salt Ecol LC50:	5.1E+3	µg/L	ECOTOX				
PERSISTENCE							
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days					
Volatility:	9.0E+1	days	THOMAS				
Photolysis:		days					
Biodeg:	2.8E+1	days	FATERATE				
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	9.7E-1	days	THOMAS				
Photolysis:		days					
Biodeg:	2.8E+1	days	FATERATE				
Radio:		days					
Log Kow:	3.0E+0		CHEMFATE				
CLASS INFORMATION							
Class				Parent Substance			

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Styrene

CAS Number: 000100-42-5

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter	Value
Toxicity:	10
Gas Mobility:	1.0000
Gas Migration:	17

GROUND WATER PATHWAY

Parameter	Value
Toxicity:	10
Water Solub:	3.1E+2
Distrib:	1.2E+2
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E-2

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	10

SURFACE WATER PATHWAY

DRINKING WATER

Parameter	Value
Toxicity:	10

HUMAN FOOD CHAIN

Parameter	Value
Toxicity:	10

ENVIRONMENTAL

Parameter	Value
Fresh Tox:	100
Salt Tox:	100

Persistence	
River:	0.4000
Lake:	1.0000

Persistence	
River:	0.4000
Lake:	1.0000

Persistence	
River:	0.4000
Lake:	1.0000

Bioaccumulation	
Fresh:	50.0
Salt:	50.0

Bioaccumulation	
Fresh:	50.0
Salt:	50.0

BENCHMARKS

AIR PATHWAY

Parameter	Value
NAAQS/NESHAPS:	$\mu\text{g}/\text{m}^3$
Cancer Risk:	mg/m ³
Non Cancer Risk:	1.0E+0

GROUND WATER PATHWAY

Parameter	Value
MCL/MCLG:	1.0E-1
Cancer Risk:	mg/L
Non Cancer Risk:	7.3E+0

SOIL EXPOSURE PATHWAY

Parameter	Value
Cancer Risk:	mg/kg
Non Cancer Risk:	1.6E+4

RADIONUCLIDE

Parameter	Value
MCL:	pCi/L
UMTRCA:	pCi/kg
CANCER RISK	
Air:	pCi/m^3
DW:	pCi/L
FC:	pCi/kg
Soil Ing:	pCi/kg
Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter	Value
MCL/MCLG:	1.0E-1
Cancer Risk:	mg/L
Non Cancer Risk:	7.3E+0

HUMAN FOOD CHAIN

Parameter	Value
FDAAL:	ppm
Cancer Risk:	mg/kg
Non Cancer Risk:	2.7E+2

ENVIRONMENTAL

Parameter	Value
ACUTE	
Fresh CMC:	$\mu\text{g}/\text{L}$
Salt CMC:	$\mu\text{g}/\text{L}$
CHRONIC	
Fresh CCC:	$\mu\text{g}/\text{L}$
Salt CCC:	$\mu\text{g}/\text{L}$

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Technetium 99 (radionuclide)

CAS Number: 014133-76-7

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	Food: 4.00E-12 Soil: 7.66E-12 Water: 2.75E-12	(pCi) ⁻¹	HEAST
Oral Wt-of-Evid:	A	(pCi) ⁻¹	HEAST
Inhal Slope:	1.4E-11	(pCi) ⁻¹	HEAST
Inhal Wt-of-Evid:	A		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	

CHRONIC

Fresh CCC:	µg/L
Salt CCC:	µg/L
Fresh Ecol LC50:	µg/L
Salt Ecol LC50:	µg/L

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	7.7E+7	days	SSG-Rad
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	7.7E+7	days	SSG-Rad

Log Kow:

PHYSICAL CHARACTERISTICS	
Parameter	Value
Metal Contain:	Yes
Organic:	No
Gas:	No
Particulate:	Yes
Radionuclide:	Yes
Rad. Element:	No
Molecular Weight:	9.9E+1
Density:	@

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	7.0E-3	ml/g	SSG-Rad
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:	
Salt BCF:	

OTHER DATA

Melting Point:	
Boiling Point:	
Formula:	Tc-99

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Technetium 99 (radionuclide)

CAS Number: 014133-76-7

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	1000
Gas Mobility:	
Gas Migration:	

Parameter	Value
Toxicity:	1000
Water Solub:	
Distrib:	7.0E-3
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	
Non Karst:	

Parameter	Value
Toxicity:	1000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	1000

Parameter	Value
Toxicity:	1000

Parameter	Value
Fresh Tox:	1000
Salt Tox:	1000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation

Fresh:	0.5
Salt:	0.5

Bioaccumulation

Fresh:	0.5
Salt:	0.5

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value
NAAQS/NESHAPS:	<u>Unit</u> µg/m ³
Cancer Risk:	<u>Value</u> mg/m ³
Non Cancer Risk:	<u>Value</u> mg/m ³

Parameter	Value
MCL/MCLG:	<u>Unit</u> mg/L
Cancer Risk:	<u>Value</u> mg/L
Non Cancer Risk:	<u>Value</u> mg/L

Parameter	Value
Cancer Risk:	<u>Unit</u> mg/kg
Non Cancer Risk:	<u>Value</u> mg/kg

Parameter	Value	Unit
MCL:	9.0E+2	pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:	3.4E-1	pCi/m ³
DW:	1.7E+1	pCi/L
FC:	4.4E+2	pCi/kg
Soil Ing:	1.0E+5	pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
MCL/MCLG:	<u>Unit</u> mg/L
Cancer Risk:	<u>Value</u> mg/L
Non Cancer Risk:	<u>Value</u> mg/L

Parameter	Value
FDAAL:	<u>Unit</u> ppm
Cancer Risk:	<u>Value</u> mg/kg
Non Cancer Risk:	<u>Value</u> mg/kg

Parameter	Value
ACUTE	
Fresh CMC:	
Salt CMC:	

CHRONIC	
Fresh CCC:	
Salt CCC:	

<u>Unit</u>
µg/L
µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Tetrachlorobenzene, 1,2,4,5-

CAS Number: 000095-94-3

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-4	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	2.2E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	1.9E+0	g/mL @ 22.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg					
Oral LD50:		mg/kg					
Dermal LD50:		ppm					
Gas Inhal LC50:		mg/L					
Dust Inhal LC50:							
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	8.9E+1	µg/L	ECOTOX				
Salt Ecol LC50:	1.2E+2	µg/L	ECOTOX				

PERSISTENCE				MOBILITY			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halfives				Vapor Press:	5.4E-3	Torr	CHEMFATE
Hydrolysis:	3.2E+3	days	CHEMFATE	Henry's Law:	2.6E-3	atm-m3/mol	CHEMFATE
Volatility:	1.3E+2	days	THOMAS	Water Solub:	5.9E-1	mg/L	CHEMFATE
Photolysis:		days		Distrib Coef:	1.1E+1	ml/g	SSG_KD
Biodeg:	1.8E+2	days	FATERATE	Geo Mean Sol:		mg/L	
Radio:		days					
RIVER - Halfives							
Hydrolysis:	3.2E+3	days	CHEMFATE				
Volatility:	1.4E+0	days	THOMAS				
Photolysis:		days					
Biodeg:	1.8E+2	days	FATERATE				
Radio:		days					
Log Kow:	4.8E+0		CHEMFATE				

BIOACCUMULATION			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			
ENVIRONMENTAL			
Fresh BCF:	4.1E+3		ECOTOX
Salt BCF:			
Log Kow:	4.8E+0		CHEMFATE
Water Solub:	5.9E-1		CHEMFATE
Geo Mean Sol:		mg/L	
OTHER DATA			
Melting Point:	1.4E+2	C	
Boiling Point:	2.4E+2	C	
Formula:	C6 H2 Cl4		

CLASS INFORMATION			
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Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Tetrachlorobenzene, 1,2,4,5-

CAS Number: 000095-94-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	10000
Gas Mobility:	0.2000
Gas Migration:	17

Parameter	Value
Toxicity:	10000
Water Solub:	5.9E-1
Distrib:	1.1E+1
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	2.0E-3
Non Karst:	2.0E-5

Parameter	Value
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	10000
Persistence	
River:	1.0000
Lake:	1.0000

Parameter	Value
Toxicity:	10000
Persistence	
River:	1.0000
Lake:	1.0000
Bioaccumulation	
Fresh:	5000.0
Salt:	5000.0

Parameter	Value
Fresh Tox:	10000
Salt Tox:	1000
Persistence	
River:	1.0000
Lake:	1.0000
Bioaccumulation	
Fresh:	5000.0
Salt:	5000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value
NAAQS/NESHAPS:	<u>Unit</u> µg/m ³
Cancer Risk:	<u>Value</u> mg/m ³
Non Cancer Risk:	<u>Value</u> mg/m ³

Parameter	Value
MCL/MCLG:	<u>Unit</u> mg/L
Cancer Risk:	<u>Value</u> mg/L
Non Cancer Risk:	<u>Value</u> mg/L

Parameter	Value
Cancer Risk:	<u>Unit</u> mg/kg
Non Cancer Risk:	<u>Value</u> 2.3E+1

Parameter	Value
MCL:	<u>Unit</u> pCi/L
UMTRCA:	<u>Unit</u> pCi/kg
CANCER RISK	
Air:	<u>Unit</u> pCi/m ³
DW:	<u>Unit</u> pCi/L
FC:	<u>Unit</u> pCi/kg
Soil Ing:	<u>Unit</u> pCi/kg
Soil Gam:	<u>Unit</u> pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
MCL/MCLG:	<u>Unit</u> mg/L
Cancer Risk:	<u>Unit</u> mg/L
Non Cancer Risk:	<u>Value</u> 1.1E-2

Parameter	Value
FDAAL:	<u>Unit</u> ppm
Cancer Risk:	<u>Value</u> mg/kg
Non Cancer Risk:	<u>Value</u> 4.1E-1

Parameter	Value
ACUTE	
Fresh CMC:	<u>Unit</u> µg/L
Salt CMC:	<u>Unit</u> µg/L

CHRONIC
Fresh CCC:
Salt CCC:

Unit
µg/L
µg/L

REFERENCE 2

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Date: 1/28/2004

Date: 1/26/2004
Chemical: Tetrachlorodibenzo-p-dioxin

CAS Number: 041903-57-5

SUPERFUND CHEMICAL DATA MATRIX

CLASS INFORMATION

Class

Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Tetrachlorodibenzo-p-dioxin

CAS Number: 041903-57-5

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity: 0

Gas Mobility:

Gas Migration:

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity: 0

Water Solub: 3.5E-4

Distrib: 9.6E+5

Geo Mean Sol:

Mobility:

Liquid Karst: 1.0E+0

Non Karst: 1.0E-4

Non Liq. Karst: 2.0E-5

Non Karst: 2.0E-9

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity: 0

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity: 0

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity: 0

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Fresh Tox: 0

Salt Tox: 0

Persistence

River: 1.0000

Lake: 1.0000

Persistence

River: 1.0000

Lake: 1.0000

Persistence

River: 1.0000

Lake: 1.0000

Bioaccumulation

Fresh: 50000.0

Salt: 50000.0

Bioaccumulation

Fresh: 50000.0

Salt: 50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>
------------------	--------------

NAAQS/NESHAPS: Unit µg/m³

Cancer Risk: Value mg/m³

Non Cancer Risk: Value mg/m³

<u>Parameter</u>	<u>Value</u>
------------------	--------------

MCL/MCLG: Unit mg/L

Cancer Risk: Value mg/L

Non Cancer Risk: Value mg/L

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Cancer Risk: Unit mg/kg

Non Cancer Risk: Value mg/kg

<u>Parameter</u>	<u>Value</u>
------------------	--------------

MCL: Unit mg/kg

UMTRCA: Value pCi/kg

CANCER RISK: Value pCi/kg

Air: <u>Unit</u> pCi/m ³
DW: <u>Unit</u> pCi/L
FC: <u>Unit</u> pCi/kg
Soil Ing: <u>Unit</u> pCi/kg
Soil Gam: <u>Unit</u> pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
------------------	--------------

MCL/MCLG: Unit mg/L

Cancer Risk: Value mg/L

Non Cancer Risk: Value mg/L

<u>Parameter</u>	<u>Value</u>
------------------	--------------

FDAAL: Unit ppm

Cancer Risk: Value mg/kg

Non Cancer Risk: Value mg/kg

<u>Parameter</u>	<u>Value</u>
------------------	--------------

ACUTE Fresh CMC: Unit µg/L

Salt CMC: Value µg/L

CHRONIC Fresh CCC: Unit µg/L

Salt CCC: Value µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Tetrachlorodibenzo-p-dioxin 2,3,7,8- (TCDD)

CAS Number: 001746-01-6

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	1.5E+5	(mg/kg/day)~1	HEAST
Oral Wt-of-Evid:	B2		
Inhal Slope:	1.5E+5	(mg/kg/day)~1	HEAST
Inhal Wt-of-Evid:	B2		
Oral ED10:	1.5E-6	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		
Inhal ED10:	1.5E-6	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		
Oral LD50:	5.0E-1	mg/kg	RTECS
Dermal LD50:	8.0E-2	mg/kg	RTECS
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L

Fresh Ecol LC50:	μg/L
Salt Ecol LC50:	μg/L

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	1.6E+2	days	THOMAS
Photolysis:	6.7E-6	days	CHEMFATE
Biodeg:	5.7E+1	days	CHEMFATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:	2.3E+0	days	THOMAS
Photolysis:	6.7E-6	days	CHEMFATE
Biodeg:	5.7E+1	days	CHEMFATE
Radio:		days	
Log Kow:	6.6E+0		CHEMFATE

CLASS INFORMATION

Class Parent Substance

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Metal Contain:	No		
Organic:	Yes		
Gas:	Yes		
Particulate:	Yes		
Radionuclide:	No		
Rad. Element:	No		
Molecular Weight:	3.2E+2		
Density:		g/mL @ C	

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.5E-9	Torr	CHEMFATE
Henry's Law:	7.9E-5	atm-m3/mol	CHEMFATE
Water Solub:	8.0E-6	mg/L	CHEMFATE
Distrib Coef:	5.1E+5	ml/g	DITOR_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	2.0E+3		VER_BCF
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:	4.2E+3		VER_BCF
Salt BCF:			
Log Kow:	6.6E+0		CHEMFATE
Water Solub:	8.0E-6	mg/L	CHEMFATE
Geo Mean Sol:			

OTHER DATA

Melting Point:	3.0E+2	C
Boiling Point:		C
Formula:	C12 H4 Cl4 O2	

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Tetrachlorodibenzo-p-dioxin 2,3,7,8- (TCDD)

CAS Number: 001746-01-6

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	10000
Gas Mobility:	0.0002
Gas Migration:	6

Parameter	Value
Toxicity:	10000
Water Solub:	8.0E-6
Distrib:	5.1E+5
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	2.0E-5
Non Karst:	2.0E-9

Parameter	Value
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	10000

Parameter	Value
Toxicity:	10000

Parameter	Value
Fresh Tox:	0
Salt Tox:	0

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	5000.0
Salt:	5000.0

Bioaccumulation	
Fresh:	5000.0
Salt:	5000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value	Unit
NAAQS/NESHAPS:		$\mu\text{g}/\text{m}^3$
Cancer Risk:	5.7E-11	mg/m^3
Non Cancer Risk:		mg/m^3

Parameter	Value	Unit
MCL/MCLG:	3.0E-8	mg/L
Cancer Risk:	5.7E-10	mg/L
Non Cancer Risk:		mg/L

Parameter	Value	Unit
Cancer Risk:	4.3E-6	mg/kg
Non Cancer Risk:		mg/kg

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m^3
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit
MCL/MCLG:	3.0E-8	mg/L
Cancer Risk:	5.7E-10	mg/L
Non Cancer Risk:		mg/L

Parameter	Value	Unit
FDAAL:		ppm
Cancer Risk:	2.1E-8	mg/kg
Non Cancer Risk:		mg/kg

Parameter	Value	Unit
ACUTE		
Fresh CMC:		$\mu\text{g}/\text{L}$
Salt CMC:		$\mu\text{g}/\text{L}$
CHRONIC		
Fresh CCC:		$\mu\text{g}/\text{L}$
Salt CCC:		$\mu\text{g}/\text{L}$

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Tetrachlorodibenzofuran 2,3,7,8-

CAS Number: 051207-31-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	1.5E+4	(mg/kg/day)^-1	LIVECHEM
Oral Wt-of-Evid:	B2		
Inhal Slope:	1.5E+4	(mg/kg/day)^-1	LIVECHEM
Inhal Wt-of-Evid:	B2		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:	5.0E-3	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L

Fresh Ecol LC50:	μg/L
Salt Ecol LC50:	μg/L

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	1.6E+2	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:	4.4E+0	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	6.5E+0		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Metal Contain:	No		
Organic:	Yes		
Gas:	Yes		
Particulate:	Yes		
Radionuclide:	No		
Rad. Element:	No		
Molecular Weight:	3.1E+2		
Density:		g/mL @ C	

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	1.5E-6	Torr	PHYSPROP
Henry's Law:	1.5E-5	atm-m3/mol	PHYSPROP
Water Solub:	6.9E-4	mg/L	PHYSPROP
Distrib Coef:	4.0E+5	ml/g	DITOR_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:	6.5E+0		PHYSPROP
Salt BCF:			PHYSPROP
Log Kow:	6.5E+0	mg/L	
Water Solub:	6.9E-4		
Geo Mean Sol:			

OTHER DATA

Melting Point:		C
Boiling Point:		C
Formula:	C12 H4 Cl4 O	

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Tetrachlorodibenzofuran 2,3,7,8-

CAS Number: 051207-31-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	10000
Gas Mobility:	0.0020
Gas Migration:	6

Parameter	Value
Toxicity:	10000
Water Solub:	6.9E-4
Distrib:	4.0E+5
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	2.0E-5
Non Karst:	2.0E-9

Parameter	Value
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	10000

Parameter	Value
Toxicity:	10000

Parameter	Value
Fresh Tox:	0
Salt Tox:	0

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

Bioaccumulation	
Fresh:	50000.0
Salt:	50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value	Unit
NAAQS/NESHAPS:		$\mu\text{g}/\text{m}^3$
Cancer Risk:	5.7E-10	mg/m^3
Non Cancer Risk:		mg/m^3

Parameter	Value	Unit
MCL/MCLG:		mg/L
Cancer Risk:	5.7E-9	mg/L
Non Cancer Risk:		mg/L

Parameter	Value	Unit
Cancer Risk:	4.3E-5	mg/kg
Non Cancer Risk:		mg/kg

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m^3
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit
MCL/MCLG:		mg/L
Cancer Risk:	5.7E-9	mg/L
Non Cancer Risk:		mg/L

Parameter	Value	Unit
FDAAL:		ppm
Cancer Risk:	2.1E-7	mg/kg
Non Cancer Risk:		mg/kg

Parameter	Value	Unit
ACUTE		
Fresh CMC:		$\mu\text{g}/\text{L}$
Salt CMC:		$\mu\text{g}/\text{L}$

CHRONIC		
Fresh CCC:		$\mu\text{g}/\text{L}$
Salt CCC:		$\mu\text{g}/\text{L}$

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Tetrachloroethane, 1,1,2,2-

CAS Number: 000079-34-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	2.0E-1	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	C		
Inhal Slope:	2.0E-1	(mg/kg/day)^-1	IRIS
Inhal Wt-of-Evid:	C		
Oral ED10:	6.0E-1	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	C		
Inhal ED10:	6.0E-1	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	C		
Oral LD50:	3.2E+2	mg/kg	ACGIH
Dermal LD50:	6.3E+3	mg/kg	ACGIH
Gas Inhal LC50:	1.0E+3	ppm	ACGIH
Dust Inhal LC50:	3.7E+3	mg/L	RTECS

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L

Fresh Ecol LC50:	μg/L
Salt Ecol LC50:	μg/L

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>
Metal Contain:	No
Organic:	Yes
Gas:	Yes
Particulate:	No
Radionuclide:	No
Rad. Element:	No
Molecular Weight:	1.7E+2
Density:	1.6E+0 g/mL @ 20.00 C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.6E+0	Torr	CHEMFATE
Henry's Law:	3.4E-4	atm-m3/mol	CHEMFATE
Water Solub:	3.0E+3	mg/L	CHEMFATE
Distrib Coef:	1.9E-1	ml/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	8.0E+0		VER_BCF
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:	8.0E+0		VER_BCF
Salt BCF:			
Log Kow:	2.4E+0		CHEMFATE
Water Solub:	3.0E+3		CHEMFATE
Geo Mean Sol:		mg/L	

OTHER DATA

Melting Point:	-4.4E+1	C
Boiling Point:	1.5E+2	C
Formula:	C2 H2 Cl4	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:	4.4E+1	days	FATERATE
Volatility:	1.1E+2	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+2	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:	4.4E+1	days	FATERATE
Volatility:	1.3E+0	days	THOMAS
Photolysis:		days	
Biodeg:	1.8E+2	days	FATERATE
Radio:		days	
Log Kow:	2.4E+0		CHEMFATE

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Tetrachloroethane, 1,1,2,2-

CAS Number: 000079-34-5

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10	Toxicity:	10	Toxicity:	10
Gas Mobility:	1.0000	Water Solub:	3.0E+3		
Gas Migration:	11	Distrib:	1.9E-1		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10	Toxicity:	10	Fresh Tox:	0
				Salt Tox:	0
Persistence		Persistence		Persistence	
River:	0.4000	River:	0.4000	River:	0.4000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	5.0	Fresh:	5.0
		Salt:	5.0	Salt:	5.0

BENCHMARKS

AIR PATHWAY			GROUND WATER PATHWAY			SOIL EXPOSURE PATHWAY			RADIONUCLIDE		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:	3.2E+0	mg/kg	MCL:		pCi/L
Cancer Risk:	4.2E-5	mg/m ³	Cancer Risk:	4.3E-4	mg/L	Non Cancer Risk:		mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:		mg/m ³	Non Cancer Risk:		mg/L				CANCER RISK		
									Air:		pCi/m ³
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:	4.3E-4	mg/L	Cancer Risk:	1.6E-2	mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Tetrachloroethylene

CAS Number: 000127-18-4

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	1.0E-2	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	5.2E-2	(mg/kg/day)^-1	LIVECHEM	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	No		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:	3.4E+0	mg/kg/day	EPA_ED10	Molecular Weight:	1.7E+2		
Oral ED10 Wgt:	B2			Density:	1.6E+0	g/mL @ 20.00 C	
Inhal ED10:	3.4E+0	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	B2						
Oral LD50:	3.0E+3	mg/kg	ACGIH				
Dermal LD50:	3.2E+3	mg/kg	RTECS				
Gas Inhal LC50:	4.0E+3	ppm	ACGIH				
Dust Inhal LC50:	3.4E+1	mg/L	RTECS				
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:		µg/L					
Salt Ecol LC50:		µg/L					
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		Vapor Press:	1.9E+1	Torr	CHEMFATE
Volatility:	1.1E+2	days	THOMAS	Henry's Law:	1.8E-2	atm-m3/mol	CHEMFATE
Photolysis:	8.4E+1	days	CHEMFATE	Water Solub:	2.0E+2	mg/L	CHEMFATE
Biodeg:	3.6E+2	days	FATERATE	Distrib Coef:	3.1E-1	ml/g	SSG_KD
Radio:		days		Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	1.2E+0	days	THOMAS				
Photolysis:	8.4E+1	days	CHEMFATE				
Biodeg:	3.6E+2	days	FATERATE				
Radio:		days					
Log Kow:	3.4E+0		CHEMFATE				
CLASS INFORMATION				BIOACCUMULATION			
Class	Parent Substance			Parameter	Value	Unit	Source
				FOOD CHAIN			
				Fresh BCF:	4.9E+1		VER_BCF
				Salt BCF:			
ENVIRONMENTAL							
				Fresh BCF:	4.9E+1		VER_BCF
				Salt BCF:			
				Log Kow:	3.4E+0		CHEMFATE
				Water Solub:	2.0E+2	mg/L	CHEMFATE
				Geo Mean Sol:			
OTHER DATA				CLASS INFORMATION			
				Parameter	Value	Unit	Source
				MELTING POINT			
				Melting Point:	-2.2E+1	C	
				Boiling Point:	1.2E+2	C	
				Formula:	C2 Cl4		

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Tetrachloroethylene

CAS Number: 000127-18-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	100
Gas Mobility:	1.0000
Gas Migration:	17

Parameter	Value
Toxicity:	100
Water Solub:	2.0E+2
Distrib:	3.1E-1
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E+0

Parameter	Value
Toxicity:	100

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	100

Parameter	Value
Toxicity:	100

Parameter	Value
Fresh Tox:	0
Salt Tox:	0

Persistence	
River:	0.4000
Lake:	1.0000

Persistence	
River:	0.4000
Lake:	1.0000

Persistence	
River:	0.4000
Lake:	1.0000

Bioaccumulation	
Fresh:	50.0
Salt:	50.0

Bioaccumulation	
Fresh:	50.0
Salt:	50.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter	Value
NAAQS/NESHAPS:	$\mu\text{g}/\text{m}^3$
Cancer Risk:	mg/m3
Non Cancer Risk:	mg/m3

Parameter	Value
MCL/MCLG:	5.0E-3
Cancer Risk:	1.6E-3
Non Cancer Risk:	3.6E-1

Parameter	Value
Cancer Risk:	1.2E+1
Non Cancer Risk:	7.8E+2

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		$\mu\text{g}/\text{m}^3$
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit
MCL/MCLG:	5.0E-3	mg/L
Cancer Risk:	1.6E-3	mg/L
Non Cancer Risk:	3.6E-1	mg/L

Parameter	Value	Unit
FDAAL:		ppm
Cancer Risk:	6.1E-2	mg/kg
Non Cancer Risk:	1.4E+1	mg/kg

Parameter	Value	Unit
ACUTE		
Fresh CMC:		$\mu\text{g}/\text{L}$
Salt CMC:		$\mu\text{g}/\text{L}$
CHRONIC		
Fresh CCC:		$\mu\text{g}/\text{L}$
Salt CCC:		$\mu\text{g}/\text{L}$

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Thallium

CAS Number: 007440-28-0

TOXICITY		PHYSICAL CHARACTERISTICS	
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Inhal Wt-of-Evid:			
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	5.0E+0	mg/kg	ACGIH
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	2.3E-1		PHYSPROP

PHYSICAL CHARACTERISTICS	
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<u>Parameter</u>	<u>Value</u>
Metal Contain:	Yes
Organic:	No
Gas:	No
Particulate:	Yes
Radionuclide:	No
Rad. Element:	No
Molecular Weight:	2.0E+2
Density:	1.2E+1 g/mL @ C

MOBILITY			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m³/mol	
Water Solub:		mg/L	
Distrib Coef:	7.1E+1	mL/g	SSG_KD
Geo Mean Sol:	8.6E+3	mg/L	CALC

BIOACCUMULATION			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.3E+2		VER_BCF
Salt BCF:	1.8E+1		VER_BCF

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
ENVIRONMENTAL			
Fresh BCF:	1.3E+2		VER_BCF
Salt BCF:	1.8E+1		VER_BCF
Log Kow:	2.3E-1		PHYSPROP
Water Solub:			
Geo Mean Sol:	8.6E+3	mg/L	CALC

OTHER DATA			
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Melting Point:	3.0E+2	C
Boiling Point:	1.5E+3	C
Formula:	Tl	

CLASS INFORMATION		
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Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Thallium

CAS Number: 007440-28-0

ASSIGNED FACTOR VALUES

AIR PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Gas Mobility:	
Gas Migration:	

GROUND WATER PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Water Solub:	
Distrib:	7.1E+1
Geo Mean Sol:	8.6E+3
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E-2

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

SURFACE WATER PATHWAY

DRINKING WATER

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

HUMAN FOOD CHAIN

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	0
Salt Tox:	0

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	500.0
Salt:	50.0

Bioaccumulation	
Fresh:	500.0
Salt:	50.0

BENCHMARKS

AIR PATHWAY

Parameter	Value
NAAQS/NESHAPS:	
Cancer Risk:	
Non Cancer Risk:	

GROUND WATER PATHWAY

Parameter	Value
MCL/MCLG:	5.0E-4
Cancer Risk:	
Non Cancer Risk:	

SOIL EXPOSURE PATHWAY

Parameter	Value
MCL:	
UMTRCA:	
CANCER RISK	
Air:	pCi/m ³
DW:	pCi/L
FC:	pCi/kg
Soil Ing:	pCi/kg
Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter	Value
MCL/MCLG:	5.0E-4
Cancer Risk:	
Non Cancer Risk:	

HUMAN FOOD CHAIN

Parameter	Value
FDAAL:	
Cancer Risk:	
Non Cancer Risk:	

ENVIRONMENTAL

Parameter	Value
ACUTE	
Fresh CMC:	
Salt CMC:	
CHRONIC	
Fresh CCC:	µg/L
Salt CCC:	µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Thallium 204 (radionuclide)

CAS Number: 013968-51-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	Food: 8.25E-12 Soil: 1.54E-11 Water: 5.85E-12	(pCi) ⁻¹	HEAST
Oral Wt-of-Evid:	A	(pCi) ⁻¹	
Inhal Slope:	2.4E-12	(pCi) ⁻¹	HEAST
Inhal Wt-of-Evid:	A		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	

CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	

Fresh Ecol LC50:	µg/L
Salt Ecol LC50:	µg/L

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.5E+3	days	SSG-Rad
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.5E+3	days	SSG-Rad
Log Kow:	2.3E-1		PHYSPROP

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Metal Contain:	Yes		
Organic:	No		
Gas:	No		
Particulate:	Yes		
Radionuclide:	Yes		
Rad. Element:	No		
Molecular Weight:	2.0E+2		
Density:	1.2E+1	g/mL @ C	

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m ³ /mol	
Water Solub:		mg/L	
Distrib Coef:	7.1E+1	ml/g	SSG_KD
Geo Mean Sol:	8.6E+3	mg/L	CALC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.3E+2		VER_BCF
Salt BCF:	1.8E+1		VER_BCF

ENVIRONMENTAL

Fresh BCF:	1.3E+2		VER_BCF
Salt BCF:	1.8E+1		VER_BCF

Log Kow:	2.3E-1		PHYSPROP
Water Solub:			
Geo Mean Sol:	8.6E+3	mg/L	CALC

OTHER DATA

Melting Point:	3.0E+2	C
Boiling Point:	1.5E+3	C
Formula:	Tl-204	

CLASS INFORMATION

<u>Class</u>	<u>Parent Substance</u>
GW Mob:	007440-28-0
Other:	007440-28-0

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Thallium 204 (radionuclide)

CAS Number: 013968-51-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter	Value
Toxicity:	1000
Gas Mobility:	
Gas Migration:	

GROUND WATER PATHWAY

Parameter	Value
Toxicity:	1000
Water Solub:	
Distrib:	7.1E+1
Geo Mean Sol:	8.6E+3
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E-2

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	1000

SURFACE WATER PATHWAY

DRINKING WATER

Parameter	Value
Toxicity:	1000

HUMAN FOOD CHAIN

Parameter	Value
Toxicity:	1000

ENVIRONMENTAL

Parameter	Value
Fresh Tox:	1000
Salt Tox:	1000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	500.0
Salt:	50.0

Bioaccumulation	
Fresh:	500.0
Salt:	50.0

BENCHMARKS

AIR PATHWAY

Parameter	Value
NAAQS/NESHAPS:	
Cancer Risk:	
Non Cancer Risk:	

GROUND WATER PATHWAY

Parameter	Value
MCL/MCLG:	
Cancer Risk:	
Non Cancer Risk:	

SOIL EXPOSURE PATHWAY

Parameter	Value
MCL:	3.0E+2
UMTRCA:	

CANCER RISK	
Air:	1.9E+0
DW:	8.1E+0
FC:	2.1E+2
Soil Ing:	5.2E+4
Soil Gam:	pCi/kg

pCi/m³
 pCi/L
 pCi/kg
 pCi/kg
 pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter	Value
MCL/MCLG:	
Cancer Risk:	
Non Cancer Risk:	

HUMAN FOOD CHAIN

Parameter	Value
FDAAL:	
Cancer Risk:	

ENVIRONMENTAL

Parameter	Value
ACUTE	
Fresh CMC:	

CHRONIC
 Fresh CCC:
 Salt CCC:

μg/L
 μg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Thorium 227 (radionuclide)

CAS Number: 015623-47-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	Food: 6.92E-11 Soil: 1.37E-10 Water: 4.74E-11	(pCi) ⁻¹	HEAST
Oral Wt-of-Evid:	A	(pCi) ⁻¹	HEAST
Inhal Slope:	3.5E-8	(pCi) ⁻¹	HEAST
Inhal Wt-of-Evid:	A		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>
Metal Contain:	Yes
Organic:	No
Gas:	No
Particulate:	Yes
Radionuclide:	Yes
Rad. Element:	No
Molecular Weight:	2.3E+2
Density:	1.2E+1 g/mL @ C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m ³ /mol	
Water Solub:		mg/L	
Distrib Coef:	2.0E+1	ml/g	SSG-Rad
Geo Mean Sol:	2.8E+5	mg/L	CALC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:
Salt BCF:

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Log Kow:			
Water Solub:			
Geo Mean Sol:	2.8E+5	mg/L	CALC

OTHER DATA

Melting Point:	1.8E+3	C
Boiling Point:		C
Formula:	Th-227	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.9E+1	days	SSG-Rad
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.9E+1	days	SSG-Rad

Log Kow:

CLASS INFORMATION

<u>Class</u>	<u>Parent Substance</u>
GW Mob:	007440-29-1
Other:	007440-29-1

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Thorium 227 (radionuclide)

CAS Number: 015623-47-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity: 10000

Gas Mobility:

Gas Migration:

<u>Parameter</u>	<u>Value</u>
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Toxicity: 10000

Water Solub:

Distrib: 2.0E+1

Geo Mean Sol: 2.8E+5

Mobility:

Liquid Karst: 1.0E+0

Non Karst: 1.0E-2

Non Liq. Karst: 1.0E+0

Non Karst: 1.0E-2

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity: 10000

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity: 10000

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity: 10000

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Fresh Tox: 10000

Salt Tox: 10000

Persistence

River: 1.0000

Lake: 0.4000

Persistence

River: 1.0000

Lake: 0.4000

Persistence

River: 1.0000

Lake: 0.4000

Bioaccumulation

Fresh: 0.5

Salt: 0.5

Bioaccumulation

Fresh: 0.5

Salt: 0.5

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>
------------------	--------------

NAAQS/NESHAPS:

mg/m³

Cancer Risk:

mg/m³

Non Cancer Risk:

<u>Unit</u>

µg/m³

MCL/MCLG:

mg/m³

Cancer Risk:

mg/L

Non Cancer Risk:

<u>Parameter</u>	<u>Value</u>
------------------	--------------

MCL/MCLG:

mg/L

Cancer Risk:

mg/L

Non Cancer Risk:

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Cancer Risk:

mg/L

Non Cancer Risk:

mg/L

<u>Unit</u>

mg/kg

MCL:

mg/kg

UMTRCA:

CANCER RISK

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Air: 1.4E-4

DW: 1.0E+0

FC: 2.5E+1

Soil Ing: 5.8E+3

Soil Gam:

<u>Unit</u>

pCi/m³

pCi/L

pCi/kg

pCi/kg

pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
------------------	--------------

MCL/MCLG:

mg/L

Cancer Risk:

mg/L

Non Cancer Risk:

<u>Unit</u>

mg/L

FDAAL:

mg/L

Cancer Risk:

mg/L

Non Cancer Risk:

<u>Parameter</u>	<u>Value</u>
------------------	--------------

ACUTE

Fresh CMC:

mg/L

Salt CMC:

mg/L

<u>Parameter</u>	<u>Value</u>
------------------	--------------

CHRONIC

Fresh CCC:

µg/L

Salt CCC:

µg/L

REFERENCE 2

Page 346

SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Thorium 228(+D) (radionuclide)

CAS Number: 014274-82-9

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	Food: 4.22E-10 Soil: 8.09E-10 Water: 3.00E-10	(pCi) ⁻¹	HEAST
Oral Wt-of-Evid:	A	(pCi) ⁻¹	HEAST
Inhal Slope:	1.4E-7	(pCi) ⁻¹	HEAST
Inhal Wt-of-Evid:	A		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Metal Contain:	Yes		
Organic:	No		
Gas:	No		
Particulate:	Yes		
Radionuclide:	Yes		
Rad. Element:	No		
Molecular Weight:	2.3E+2		
Density:	1.2E+1	g/mL @ C	

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m ³ /mol	
Water Solub:		mg/L	
Distrib Coef:	2.0E+1	mL/g	SSG-Rad
Geo Mean Sol:	2.8E+5	mg/L	CALC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:
Salt BCF:

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Log Kow:			
Water Solub:			
Geo Mean Sol:	2.8E+5	mg/L	CALC

OTHER DATA

Melting Point:	1.8E+3	C
Boiling Point:		C
Formula:	Th-228(+D)	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	7.3E+2	days	SSG-Rad
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	7.3E+2	days	SSG-Rad

Log Kow:

CLASS INFORMATION

<u>Class</u>	<u>Parent Substance</u>
GW Mob:	007440-29-1
Other:	007440-29-1

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Thorium 228(+D) (radionuclide)

CAS Number: 014274-82-9

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter Value

Toxicity: 10000

Gas Mobility:

Gas Migration:

Parameter Value

Toxicity: 10000

Water Solub:

Distrib: 2.0E+1

Geo Mean Sol: 2.8E+5

Mobility:

Liquid Karst: 1.0E+0

Non Karst: 1.0E-2

Non Liq. Karst: 1.0E+0

Non Karst: 1.0E-2

Parameter Value

Toxicity: 10000

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value

Toxicity: 10000

Parameter Value

Toxicity: 10000

Parameter Value

Fresh Tox: 10000

Persistence

River: 1.0000

Lake: 1.0000

Persistence

River: 1.0000

Lake: 1.0000

Persistence

River: 1.0000

Lake: 1.0000

Bioaccumulation

Fresh:

0.5

Salt:

0.5

Bioaccumulation

Fresh:

0.5

Salt:

0.5

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter Value

NAAQS/NESHAPS:

Unit

$\mu\text{g}/\text{m}^3$

Parameter Value

MCL/MCLG:

Unit

mg/L

Parameter Value

Cancer Risk:

Unit

mg/kg

Parameter Value

MCL:

Value

1.5E+1

Unit

pCi/L

Cancer Risk:

mg/m3

Parameter Value

Cancer Risk:

mg/L

Parameter Value

Non Cancer Risk:

mg/kg

Parameter Value

UMTRCA:

Unit

pCi/kg

Non Cancer Risk:

mg/m3

AIR: 3.3E-5 pCi/m³
 DW: 1.6E-1 pCi/L
 FC: 4.2E+0 pCi/kg
 Soil Ing: 9.8E+2 pCi/kg
 Soil Gam: pCi/kg

CANCER RISK

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value

MCL/MCLG:

Unit

mg/L

Parameter Value

FDAAL:

Unit

ppm

Parameter Value

ACUTE

Unit

µg/L

Cancer Risk:

mg/L

Parameter Value

Cancer Risk:

Unit

mg/kg

Parameter Value

Fresh CMC:

Unit

µg/L

Non Cancer Risk:

mg/L

Parameter Value

Non Cancer Risk:

mg/kg

Parameter Value

Salt CMC:

Unit

µg/L

CHRONIC

Fresh CCC:

Unit

µg/L

Salt CCC:

Unit

µg/L

REFERENCE 2

Page 348

SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Thorium 229(+D) (radionuclide)

CAS Number: 015594-54-4

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	Food: 7.16E-10 Soil: 1.29E-09 Water: 5.28E-10	(pCi) ⁻¹	HEAST
Oral Wt-of-Evid:	A	(pCi) ⁻¹	HEAST
Inhal Slope:	2.2E-7	(pCi) ⁻¹	HEAST
Inhal Wt-of-Evid:	A		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Metal Contain:	Yes		
Organic:	No		
Gas:	No		
Particulate:	Yes		
Radionuclide:	Yes		
Rad. Element:	No		
Molecular Weight:	2.3E+2		
Density:	1.2E+1	g/mL @ C	

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m ³ /mol	
Water Solub:		mg/L	
Distrib Coef:	2.0E+1	ml/g	SSG-Rad
Geo Mean Sol:	2.8E+5	mg/L	CALC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:
Salt BCF:

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Log Kow:			
Water Solub:			
Geo Mean Sol:	2.8E+5	mg/L	CALC

OTHER DATA

Melting Point:	1.8E+3	C
Boiling Point:		C
Formula:	Th-229(+D)	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.7E+6	days	SSG-Rad
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.7E+6	days	SSG-Rad

Log Kow:

CLASS INFORMATION

<u>Class</u>	<u>Parent Substance</u>
GW Mob:	007440-29-1
Other:	007440-29-1

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Thorium 229(+D) (radionuclide)

CAS Number: 015594-54-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter Value

Toxicity: 10000

Gas Mobility:

Gas Migration:

Parameter Value

Toxicity: 10000

Water Solub:

Distrib: 2.0E+1

Geo Mean Sol: 2.8E+5

Mobility:

Liquid Karst: 1.0E+0

Non Karst: 1.0E-2

Non Liq. Karst: 1.0E+0

Non Karst: 1.0E-2

Parameter Value

Toxicity: 10000

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value

Toxicity: 10000

Parameter Value

Toxicity: 10000

Parameter Value

Fresh Tox: 10000

Salt Tox: 10000

Persistence
River: 1.0000
Lake: 1.0000

Persistence
River: 1.0000
Lake: 1.0000

Persistence
River: 1.0000
Lake: 1.0000

Bioaccumulation

Fresh: 0.5

Salt: 0.5

Bioaccumulation

Fresh: 0.5

Salt: 0.5

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter Value

NAAQS/NESHAPS:

Cancer Risk:

Non Cancer Risk:

Unit

µg/m³

mg/m³

mg/m³

Parameter Value

MCL/MCLG:

Cancer Risk:

Non Cancer Risk:

Parameter Value

mg/L

mg/L

mg/L

Parameter Value

Cancer Risk:

Non Cancer Risk:

Parameter Value

mg/kg

mg/kg

mg/kg

Parameter Value

MCL:

UMTRCA:

CANCER RISK

Unit

pCi/L

pCi/kg

pCi/kg

Air: 2.1E-5

DW: 9.0E-2

FC: 2.5E+0

Soil Ing: 6.2E+2

Soil Gam: 0.5

pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value

MCL/MCLG:

Cancer Risk:

Non Cancer Risk:

Unit

mg/L

mg/L

mg/L

Parameter Value

FDAAL:

Cancer Risk:

Non Cancer Risk:

Parameter Value

ppm

mg/kg

mg/kg

Parameter Value

ACUTE

Fresh CMC:

Salt CMC:

Unit

µg/L

µg/L

CHRONIC

Fresh CCC:

Salt CCC:

µg/L

µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Thorium 230 (radionuclide)

CAS Number: 014269-63-7

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	Food: 1.19E-10 Soil: 2.02E-10 Water: 9.10E-11	(pCi) ⁻¹ (pCi) ⁻¹ (pCi) ⁻¹	HEAST HEAST HEAST
Oral Wt-of-Evid:	A		
Inhal Slope:	2.9E-8	(pCi) ⁻¹	HEAST
Inhal Wt-of-Evid:	A		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>
Metal Contain:	Yes
Organic:	No
Gas:	No
Particulate:	Yes
Radionuclide:	Yes
Rad. Element:	No
Molecular Weight:	2.3E+2
Density:	1.2E+1 g/mL @ C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m ³ /mol	
Water Solub:		mg/L	
Distrib Coef:	2.0E+1	mL/g	SSG-Rad
Geo Mean Sol:	2.8E+5	mg/L	CALC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:
Salt BCF:

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Log Kow:			
Water Solub:			
Geo Mean Sol:	2.8E+5	mg/L	CALC

OTHER DATA

Melting Point:	1.8E+3	C
Boiling Point:		C
Formula:	Th-230	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatile:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.8E+7	days	SSG-Rad
RIVER - Halflives			
Hydrolysis:		days	
Volatile:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.8E+7	days	SSG-Rad

Log Kow:

CLASS INFORMATION

<u>Class</u>	<u>Parent Substance</u>
GW Mob:	007440-29-1
Other:	007440-29-1

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Thorium 230 (radionuclide)

CAS Number: 014269-63-7

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter Value

Toxicity: 10000

Gas Mobility:

Gas Migration:

Parameter Value

Toxicity: 10000

Water Solub:

Distrib: 2.0E+1

Geo Mean Sol: 2.8E+5

Mobility:

Liquid Karst: 1.0E+0

Non Karst: 1.0E-2

Non Liq. Karst: 1.0E+0

Non Karst: 1.0E-2

Parameter Value

Toxicity: 10000

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value

Toxicity: 10000

Parameter Value

Toxicity: 10000

Parameter Value

Fresh Tox: 10000

Salt Tox: 10000

Persistence

River: 1.0000

Lake: 1.0000

Persistence

River: 1.0000

Lake: 1.0000

Persistence

River: 1.0000

Lake: 1.0000

Bioaccumulation

Fresh: 0.5

Salt: 0.5

Bioaccumulation

Fresh: 0.5

Salt: 0.5

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter Value

NAAQS/NESHAPS:

mg/m³

Cancer Risk:

mg/m³

Non Cancer Risk:

Unit

µg/m³

MCL/MCLG:

mg/m³

Cancer Risk:

mg/m³

Non Cancer Risk:

Parameter Value

MCL/MCLG:

mg/L

Cancer Risk:

mg/L

Non Cancer Risk:

Unit

mg/L

Cancer Risk:

mg/L

Non Cancer Risk:

Parameter Value

Cancer Risk:

mg/kg

Non Cancer Risk:

Unit

mg/kg

Cancer Risk:

mg/kg

Non Cancer Risk:

Parameter Value

MCL:

1.5E+1

UMTRCA:

CANCER RISK

Unit

pCi/L

Air:

1.7E-4

DW:

5.2E-1

FC:

1.5E+1

Soil Ing:

3.9E+3

Soil Gam:

pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value

MCL/MCLG:

mg/L

Cancer Risk:

mg/L

Non Cancer Risk:

Unit

mg/L

Cancer Risk:

mg/L

Non Cancer Risk:

Parameter Value

FDAAL:

mg/kg

Cancer Risk:

mg/kg

Non Cancer Risk:

Parameter Value

ppm

Fresh CMC:

mg/L

Salt CMC:

Parameter Value

ACUTE

Fresh CMC:

µg/L

Salt CMC:

CHRONIC

Fresh CCC:

Unit

µg/L

Fresh CCC:

µg/L

Salt CCC:

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Thorium 231 (radionuclide)

CAS Number: 014932-40-2

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	Food: 3.24E-12 Soil: 6.36E-12 Water: 2.21E-12	(pCi) ⁻¹	HEAST
Oral Wt-of-Evid:	A	(pCi) ⁻¹	HEAST
Inhal Slope:	1.5E-12	(pCi) ⁻¹	HEAST
Inhal Wt-of-Evid:	A		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	

ACUTE	Fresh CMC: Salt CMC:	µg/L µg/L
-------	-------------------------	--------------

CHRONIC	Fresh CCC: Salt CCC:	µg/L µg/L
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Fresh Ecol LC50:	µg/L
Salt Ecol LC50:	µg/L

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.1E+0	days	SSG-Rad
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.1E+0	days	SSG-Rad

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Metal Contain:	Yes		
Organic:	No		
Gas:	No		
Particulate:	Yes		
Radionuclide:	Yes		
Rad. Element:	No		
Molecular Weight:	2.3E+2		
Density:	1.2E+1	g/mL @ C	

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m ³ /mol	
Water Solub:		mg/L	
Distrib Coef:	2.0E+1	mL/g	SSG-Rad
Geo Mean Sol:	2.8E+5	mg/L	CALC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:	
Salt BCF:	

Log Kow:			
Water Solub:			
Geo Mean Sol:	2.8E+5	mg/L	CALC

OTHER DATA

Melting Point:	1.8E+3	C
Boiling Point:		C
Formula:	Th-231	

CLASS INFORMATION

<u>Class</u>	<u>Parent Substance</u>
GW Mob:	007440-29-1
Other:	007440-29-1

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Thorium 231 (radionuclide)

CAS Number: 014932-40-2

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter Value

Toxicity: 1000

Gas Mobility:

Gas Migration:

Parameter Value

Toxicity: 1000

Water Solub:

Distrib: 2.0E+1

Geo Mean Sol: 2.8E+5

Mobility:

Liquid Karst: 1.0E+0

Non Karst: 1.0E-2

Non Liq. Karst: 1.0E+0

Non Karst: 1.0E-2

Parameter Value

Toxicity: 1000

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value

Toxicity: 1000

Parameter Value

Toxicity: 1000

Parameter Value

Fresh Tox: 1000

Salt Tox: 1000

Persistence

River: 0.4000

Lake: 0.0700

Persistence

River: 0.4000

Lake: 0.0700

Persistence

River: 0.4000

Lake: 0.0700

Bioaccumulation

Fresh: 0.5

Salt: 0.5

Bioaccumulation

Fresh: 0.5

Salt: 0.5

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter Value

NAAQS/NESHAPS:

Cancer Risk:

Non Cancer Risk:

Unit

µg/m³

mg/m³

mg/m³

Parameter Value

MCL/MCLG:

Cancer Risk:

Non Cancer Risk:

Unit

mg/L

mg/L

mg/L

Parameter Value

Cancer Risk:

Non Cancer Risk:

Unit

mg/kg

mg/kg

mg/kg

Parameter Value

MCL:

UMTRCA:

CANCER RISK

Air: 3.1E+0

DW: 2.2E+1

FC: 5.4E+2

Soil Ing: 1.2E+5

Soil Gam: pCi/kg

pCi/m³

pCi/L

pCi/kg

pCi/kg

pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value

MCL/MCLG:

Cancer Risk:

Non Cancer Risk:

Unit

mg/L

mg/L

mg/L

Parameter Value

FDAAL:

Cancer Risk:

Non Cancer Risk:

Unit

ppm

mg/kg

mg/kg

Parameter Value

ACUTE

Fresh CMC:

Salt CMC:

Unit

µg/L

µg/L

CHRONIC

Fresh CCC:

Salt CCC:

µg/L

µg/L

REFERENCE 2

Page 354

SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Thorium 232 (radionuclide)

CAS Number: 007440-29-1

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	Food: 1.33E-10 Soil: 2.31E-10 Water: 1.01E-10	(pCi) ⁻¹	HEAST
Oral Wt-of-Evid:	A	(pCi) ⁻¹	HEAST
Inhal Slope:	4.3E-8	(pCi) ⁻¹	HEAST
Inhal Wt-of-Evid:	A		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L

Fresh Ecol LC50:	μg/L
Salt Ecol LC50:	μg/L

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Metal Contain:	Yes		
Organic:	No		
Gas:	No		
Particulate:	Yes		
Radionuclide:	Yes		
Rad. Element:	No		
Molecular Weight:	2.3E+2		
Density:	1.2E+1	g/mL @ C	

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	2.0E+1	ml/g	SSG-Rad
Geo Mean Sol:	2.8E+5	mg/L	CALC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:	
Salt BCF:	

Log Kow:			
Water Solub:			
Geo Mean Sol:	2.8E+5	mg/L	CALC

OTHER DATA

Melting Point:	1.8E+3	C
Boiling Point:	4.8E+3	C
Formula:	Th-232	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	5.1E+12	days	SSG-Rad
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	5.1E+12	days	SSG-Rad

Log Kow:

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

Page 355

Date: 1/28/2004

Chemical: Thorium 232 (radionuclide)

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 007440-29-1

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Gas Mobility:	
Gas Migration:	

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000
Water Solub:	
Distrib:	2.0E+1
Geo Mean Sol:	2.8E+5
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E-2

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

<u>Parameter</u>	<u>Value</u>
Toxicity:	10000

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	10000
Salt Tox:	10000

Persistence River:	1.0000
Lake:	1.0000

Persistence River:	1.0000
Lake:	1.0000

Persistence River:	1.0000
Lake:	1.0000

Bioaccumulation Fresh:	0.5
Salt:	0.5

Bioaccumulation Fresh:	0.5
Salt:	0.5

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:	µg/m ³

<u>Unit</u>	<u>Parameter</u>
µg/m ³	MCL/MCLG:

<u>Value</u>	<u>Parameter</u>
mg/m ³	Cancer Risk:

<u>Unit</u>	<u>Parameter</u>
mg/L	Cancer Risk:

<u>Value</u>	<u>Parameter</u>
mg/L	Non Cancer Risk:

<u>Unit</u>	<u>Parameter</u>
pCi/L	MCL:

<u>Unit</u>	<u>Parameter</u>
pCi/L	FC:

Non Cancer Risk:	mg/m ³
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mg/L	Non Cancer Risk:
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mg/kg	UMTRCA:
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pCi/kg	CANCER RISK
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Air:	1.1E-4	Unit
DW:	4.7E-1	pCi/m ³
FC:	1.3E+1	pCi/L
Soil Ing:	3.4E+3	pCi/kg
Soil Gam:		pCi/kg

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REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Thorium 234 (radionuclide)

CAS Number: 015065-10-8

TOXICITY				PHYSICAL CHARACTERISTICS			
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TOXICITY				PHYSICAL CHARACTERISTICS			
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:	Food: 3.04E-11 Soil: 6.70E-11 Water: 2.31E-11	(pCi) ⁻¹	HEAST	Gas:	No		
Oral Wt-of-Evid:	A	(pCi) ⁻¹	HEAST	Particulate:	Yes		
Inhal Slope:	3.1E-11	(pCi) ⁻¹	HEAST	Radionuclide:	Yes		
Inhal Wt-of-Evid:	A			Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	2.3E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	1.2E+1	g/mL @	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L		Vapor Press:		Torr	
Salt CMC:		µg/L		Henry's Law:		atm-m ³ /mol	
CHRONIC							
Fresh CCC:		µg/L		Water Solub:		mg/L	
Salt CCC:		µg/L		Distrib Coef:	2.0E+1	ml/g	SSG-Rad
Fresh Ecol LC50:		µg/L		Geo Mean Sol:	2.8E+5	mg/L	CALC
Salt Ecol LC50:		µg/L					

PERSISTENCE				BIOACCUMULATION			
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PERSISTENCE				BIOACCUMULATION			
LAKE - Halflives				FOOD CHAIN			
Hydrolysis:		days		Fresh BCF:			
Volatility:		days		Salt BCF:			
Photolysis:		days					
Biodeg:		days					
Radio:	2.4E+1	days	SSG-Rad	Log Kow:			
RIVER - Halflives				Water Solub:			
Hydrolysis:		days		Geo Mean Sol:	2.8E+5	mg/L	CALC
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:	2.4E+1	days	SSG-Rad				

Log Kow:

CLASS INFORMATION			
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<u>Class</u>	<u>Parent Substance</u>
GW Mob:	007440-29-1

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Thorium 234 (radionuclide)

CAS Number: 015065-10-8

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	10000
Gas Mobility:	
Gas Migration:	

Parameter	Value
Toxicity:	10000
Water Solub:	
Distrib:	2.0E+1
Geo Mean Sol:	2.8E+5
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-2
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E-2

Parameter	Value
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	10000

Parameter	Value
Toxicity:	10000

Parameter	Value
Fresh Tox:	10000
Salt Tox:	10000

Persistence River:	1.0000
Lake:	1.0000

Persistence River:	1.0000
Lake:	1.0000

Persistence River:	1.0000
Lake:	1.0000

Bioaccumulation Fresh:	0.5
Salt:	0.5

Bioaccumulation Fresh:	0.5
Salt:	0.5

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value
NAAQS/NESHAPS:	µg/m ³

Unit
µg/m ³

Parameter	Value
MCL/MCLG:	mg/m ³

Unit
mg/L

Cancer Risk:	mg/m ³
Non Cancer Risk:	mg/m ³

Parameter
Cancer Risk:

Value
Non Cancer Risk:

Parameter
Non Cancer Risk:

Unit
mg/L

Parameter	Value
MCL:	mg/kg

Unit
pCi/L

UMTRCA:	Air:
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UMTRCA:	DW:
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UMTRCA:	FC:
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UMTRCA:	Soil Ing:
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UMTRCA:	Soil Gam:
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Unit
pCi/m ³

Unit
pCi/L

Unit
pCi/kg

Unit
pCi/kg

Unit
pCi/kg

CHRONIC	Air:
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CHRONIC	DW:
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CHRONIC	FC:
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CHRONIC	Soil Ing:
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CHRONIC	Soil Gam:
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Unit
µg/L

Unit
µg/L

Unit
µg/L

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
MCL/MCLG:	mg/L

Unit
mg/L

Parameter	Value
FDAAL:	ppm

Unit
ppm

Parameter	Value
ACUTE	Fresh CMC:

Unit
µg/L

Cancer Risk:	mg/L
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Parameter
Cancer Risk:

Value
Non Cancer Risk:

Unit
mg/kg

Parameter	Value
Salt CMC:	

Unit
µg/L

Non Cancer Risk:	mg/L
------------------	------

Parameter
Non Cancer Risk:

Unit
mg/L

Parameter	Value

Unit
µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
Chemical: Toluene

CAS Number: 000108-88-3

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	2.0E-1	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:	1.1E-1	mg/kg/day	IRIS	Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	No		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	9.2E+1		
Oral ED10 Wgt:				Density:	8.7E-1	g/mL @ 20.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	2.6E+3	mg/kg	ACGIH				
Dermal LD50:	1.2E+4	mg/kg	ACGIH				
Gas Inhal LC50:	5.3E+3	ppm	ACGIH				
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	4.9E+3	µg/L	ECOTOX				
Salt Ecol LC50:	3.1E+3	µg/L	ECOTOX				
PERSISTENCE							
Parameter	Value	Unit	Source				
LAKE - Halflives							
Hydrolysis:		days					
Volatility:	8.4E+1	days	THOMAS				
Photolysis:	2.8E-1	days	CHEMFATE				
Biodeg:	9.0E+1	days	CHEMFATE				
Radio:		days					
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	9.1E-1	days	THOMAS				
Photolysis:	2.8E-1	days	CHEMFATE				
Biodeg:	9.0E+1	days	CHEMFATE				
Radio:		days					
Log Kow:	2.7E+0		CHEMFATE				
CLASS INFORMATION							
		Class			Parent Substance		

MOBILITY			
Parameter	Value	Unit	Source
Vapor Press:	2.8E+1	Torr	CHEMFATE
Henry's Law:	6.6E-3	atm-m3/mol	CHEMFATE
Water Solub:	5.3E+2	mg/L	CHEMFATE
Distrib Coef:	3.6E-1	ml/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:			
Salt BCF:	3.1E+1		ECOTOX
ENVIRONMENTAL			
Fresh BCF:	3.0E+3		ECOTOX
Salt BCF:	3.1E+1		ECOTOX
Log Kow:	2.7E+0		CHEMFATE
Water Solub:	5.3E+2		CHEMFATE
Geo Mean Sol:		mg/L	

OTHER DATA			
Melting Point:	-9.5E+1	C	
Boiling Point:	1.1E+2	C	
Formula:	C7 H8		

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

Page 359

Date: 1/28/2004
Chemical: Toluene

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000108-88-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter Value
Toxicity: 10
Gas Mobility: 1.0000
Gas Migration: 17

Parameter Value
Toxicity: 10
Water Solub: 5.3E+2
Distrib: 3.6E-1
Geo Mean Sol:
Mobility:
Liquid Karst: 1.0E+0
Non Karst: 1.0E+0
Non Liq. Karst: 1.0E+0
Non Karst: 1.0E+0

Parameter Value
Toxicity: 10

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value
Toxicity: 10

Parameter Value
Toxicity: 10

Parameter Value
Fresh Tox: 100
Salt Tox: 100

Persistence
River: 0.0700
Lake: 0.0700

Persistence
River: 0.0700
Lake: 0.0700

Persistence
River: 0.0700
Lake: 0.0700

Bioaccumulation
Fresh: 50.0
Salt: 50.0

Bioaccumulation
Fresh: 5000.0
Salt: 50.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:	1.0E+0	mg/L	Cancer Risk:		mg/kg	MCL:		pCi/L
Cancer Risk:		mg/m ³	Cancer Risk:		mg/L	Non Cancer Risk:	1.6E+4	mg/kg	UMTRCA:		pCi/kg
Non Cancer Risk:	4.2E-1	mg/m ³	Non Cancer Risk:	7.3E+0	mg/L				CANCER RISK		
									Air:		pCi/m ³
									DW:		pCi/L
									FC:		pCi/kg
									Soil Ing:		pCi/kg
									Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:	1.0E+0	mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:	7.3E+0	mg/L	Non Cancer Risk:	2.7E+2	mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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Date: 1/28/2004
 Chemical: Toxaphene

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 008001-35-2

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	1.1E+0	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:	1.1E+0	(mg/kg/day)^-1	IRIS	Radionuclide:	No		
Inhal Wt-of-Evid:	B2			Rad. Element:	No		
Oral ED10:	1.0E-1	mg/kg/day	EPA_ED10	Molecular Weight:	4.1E+2		
Oral ED10 Wgt:	B2			Density:	1.6E+0	g/mL @ 25.00 C	
Inhal ED10:	1.0E-1	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	B2						
Oral LD50:	1.5E+1	mg/kg	RTECS				
Dermal LD50:	6.0E+2	mg/kg	RTECS				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:	1.7E+0	mg/L	RTECS				
ACUTE							
Fresh CMC:	7.3E-1	µg/L	WATCRIT	MOBILITY			
Salt CMC:	2.1E-1	µg/L	WATCRIT	Parameter	Value	Unit	Source
CHRONIC							
Fresh CCC:	2.0E-4	aa	WATCRIT	Vapor Press:	9.8E-7	Torr	CHEMFATE
Salt CCC:	2.0E-4	aa	WATCRIT	Henry's Law:	6.0E-6	atm-m3/mol	CHEMFATE
Fresh Ecol LC50:	5.0E-1	µg/L	ECOTOX	Water Solub:	7.4E-1	mg/L	CHEMFATE
Salt Ecol LC50:	5.4E-2	µg/L	ECOTOX	Distrib Coef:	3.9E+4	ml/g	DITOR_KD
				Geo Mean Sol:		mg/L	
PERSISTENCE							
Parameter	Value	Unit	Source	BIOACCUMULATION			
LAKE - Halflives							
Hydrolysis:	3.7E+3	days	CHEMFATE	Parameter	Value	Unit	Source
Volatility:	1.9E+2	days	THOMAS	FOOD CHAIN			
Photolysis:		days		Fresh BCF:	7.6E+4		ECOTOX
Biodeg:		days		Salt BCF:	1.5E+5		ECOTOX
Radio:		days		ENVIRONMENTAL			
RIVER - Halflives							
Hydrolysis:	3.7E+3	days	CHEMFATE	Fresh BCF:	7.6E+4		ECOTOX
Volatility:	1.0E+1	days	THOMAS	Salt BCF:	1.5E+5		ECOTOX
Photolysis:		days		Log Kow:	4.8E+0		CHEMFATE
Biodeg:		days		Water Solub:	7.4E-1		CHEMFATE
Radio:		days		Geo Mean Sol:		mg/L	
Log Kow:	4.8E+0		CHEMFATE	OTHER DATA			
CLASS INFORMATION							
Class				Melting Point:	6.5E+1	C	
				Boiling Point:		C	
				Formula:	C10 H10 Cl8		

REFERENCE 2

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Date: 1/28/2004
Chemical: Toxaphene

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 008001-35-2

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	1000
Gas Mobility:	0.0020
Gas Migration:	6

Parameter	Value
Toxicity:	1000
Water Solub:	7.4E-1
Distrib:	3.9E+4
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E-4
Non Liq. Karst:	2.0E-3
Non Karst:	2.0E-7

Parameter	Value
Toxicity:	1000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	1000

Parameter	Value
Toxicity:	1000

Parameter	Value
Fresh Tox:	10000
Salt Tox:	10000

Persistence River:	1.0000
Lake:	1.0000

Persistence River:	1.0000
Lake:	1.0000

Persistence River:	1.0000
Lake:	1.0000

Bioaccumulation Fresh:	50000.0
Salt:	50000.0

Bioaccumulation Fresh:	50000.0
Salt:	50000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value
NAAQS/NESHAPS:	
Cancer Risk:	7.6E-6
Non Cancer Risk:	

Parameter	Value
Unit	
µg/m ³	MCL/MCLG: 3.0E-3
mg/m ³	Cancer Risk: 7.7E-5
mg/m ³	Non Cancer Risk:

Parameter	Value
Unit	
mg/L	Cancer Risk: 5.8E-1
mg/L	Non Cancer Risk:

Parameter	Value
Unit	
pCi/L	MCL: 10000
pCi/kg	UMTRCA: 10000
CANCER RISK	
Air:	pCi/m ³
DW:	pCi/L
FC:	pCi/kg
Soil Ing:	pCi/kg
Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
MCL/MCLG:	3.0E-3
Cancer Risk:	7.7E-5
Non Cancer Risk:	

Parameter	Value
Unit	
ppm	FDAAL: 2.9E-3
mg/kg	Cancer Risk: 2.1E-1
mg/kg	Non Cancer Risk:

Parameter	Value
ACUTE	
Fresh CMC:	7.3E-1
Salt CMC:	2.1E-1

CHRONIC	
Fresh CCC:	2.0E-4 ^{aa}
Salt CCC:	2.0E-4 ^{aa}

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Trichlorobenzene, 1,2,4-

CAS Number: 000120-82-1

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	1.0E-2	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:	5.7E-2	mg/kg/day	HEAST	Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	No		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.8E+2		
Oral ED10 Wgt:				Density:	1.5E+0	g/mL @ 25.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	3.0E+2	mg/kg	ACGIH				
Dermal LD50:	6.1E+3	mg/kg	ACGIH				
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	7.6E+2	µg/L	ECOTOX				
Salt Ecol LC50:	8.0E+1	µg/L	ECOTOX				
PERSISTENCE							
Parameter	Value	Unit	Source				
LAKE - Halflives							
Hydrolysis:	1.2E+3	days	CHEMFATE				
Volatility:	1.2E+2	days	THOMAS				
Photolysis:		days					
Biodeg:	1.8E+2	days	FATERATE				
Radio:		days					
RIVER - Halflives							
Hydrolysis:	1.2E+3	days	CHEMFATE				
Volatility:	1.3E+0	days	THOMAS				
Photolysis:		days					
Biodeg:	1.8E+2	days	FATERATE				
Radio:		days					
Log Kow:	4.0E+0		CHEMFATE				
CLASS INFORMATION							
		Class		Parent Substance			

REFERENCE 2

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Date: 1/28/2004
 Chemical: Trichlorobenzene, 1,2,4-

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000120-82-1

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Gas Mobility:	1.0000
Gas Migration:	17

<u>Parameter</u>	<u>Value</u>
Toxicity:	100
Water Solub:	3.5E+1
Distrib:	3.6E+0
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	2.0E-1
Non Karst:	2.0E-1

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

<u>Parameter</u>	<u>Value</u>
Toxicity:	100

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	1000
Salt Tox:	10000

Persistence	
River:	0.4000
Lake:	1.0000

Persistence	
River:	0.4000
Lake:	1.0000

Persistence	
River:	0.4000
Lake:	1.0000

Bioaccumulation	
Fresh:	5000.0
Salt:	500.0

Bioaccumulation	
Fresh:	5000.0
Salt:	500.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCIDE

Parameter	<u>Value</u>
NAAQS/NESHAPS:	
Cancer Risk:	

Parameter	<u>Value</u>
Unit	
µg/m ³	

Parameter	<u>Value</u>
MCL/MCLG:	7.0E-2
mg/m ³	

Parameter	<u>Value</u>
MCL:	
mg/kg	
UMTRCA:	
CANCER RISK	
Air:	pCi/m ³
DW:	pCi/L
FC:	pCi/kg
Soil Ing:	pCi/kg
Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	<u>Value</u>
MCL/MCLG:	7.0E-2
Cancer Risk:	

Parameter	<u>Value</u>
Unit	
mg/L	

Parameter	<u>Value</u>
FDAAL:	
Cancer Risk:	

Parameter	<u>Value</u>
ACUTE	
Fresh CMC:	

CHRONIC	
Fresh CCC:	µg/L
Salt CCC:	µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Trichloroethane, 1,1,1-

CAS Number: 000071-55-6

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value		
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:	6.3E-1	mg/kg/day	STSC	Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	No		
Inhal Slope:		(mg/kg/day)^-1		Radiation:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.3E+2		
Oral ED10 Wgt:				Density:	1.3E+0	g/mL @ 20.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	5.7E+3	mg/kg	ACGIH				
Dermal LD50:	1.6E+4	mg/kg	ACGIH				
Gas Inhal LC50:	3.9E+3	ppm	RTECS				
Dust Inhal LC50:		mg/L					
ACUTE				MOBILITY			
Fresh CMC:		µg/L		Parameter	Value	Unit	Source
Salt CMC:		µg/L		Vapor Press:	1.2E+2	Torr	CHEMFATE
CHRONIC				Henry's Law:	1.7E-2	atm-m3/mol	CHEMFATE
Fresh CCC:		µg/L		Water Solub:	1.3E+3	mg/L	CHEMFATE
Salt CCC:		µg/L		Distrib Coef:	2.2E-1	ml/g	SSG_KD
Fresh Ecol LC50:	3.5E+4	µg/L	ECOTOX	Geo Mean Sol:		mg/L	
Salt Ecol LC50:	3.1E+4	µg/L	ECOTOX	BIOACCUMULATION			
PERSISTENCE				Parameter	Value	Unit	Source
Parameter	Value	Unit	Source	FOOD CHAIN			
LAKE - Halflives				Fresh BCF:	9.0E+0		ECOTOX
Hydrolysis:	1.8E+2	days	CHEMFATE	Salt BCF:			
Volatility:	1.0E+2	days	THOMAS	ENVIRONMENTAL			
Photolysis:		days		Log Kow:	2.5E+0		CHEMFATE
Biodeg:	2.7E+2	days	CHEMFATE	Water Solub:	1.3E+3	mg/L	CHEMFATE
Radio:		days		Geo Mean Sol:			
RIVER - Halflives				OTHER DATA			
Hydrolysis:	1.8E+2	days	CHEMFATE	Melting Point:	-3.0E+1	C	
Volatility:	1.1E+0	days	THOMAS	Boiling Point:	7.4E+1	C	
Photolysis:		days		Formula:	C2 H3 Cl3		
Biodeg:	2.7E+2	days	CHEMFATE				
Radio:		days					
Log Kow:	2.5E+0		CHEMFATE				

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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Date: 1/28/2004
 Chemical: Trichloroethane, 1,1,1-

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000071-55-6

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	1
Gas Mobility:	1.0000
Gas Migration:	17

<u>Parameter</u>	<u>Value</u>
Toxicity:	1
Water Solub:	1.3E+3
Distrib:	2.2E-1
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E+0

<u>Parameter</u>	<u>Value</u>
Toxicity:	1

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	1

<u>Parameter</u>	<u>Value</u>
Toxicity:	1

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	10
Salt Tox:	10

Persistence	River:	0.4000
Persistence	Lake:	1.0000

Persistence	River:	0.4000
Persistence	Lake:	1.0000

Persistence	River:	0.4000
Persistence	Lake:	1.0000

Bioaccumulation	Fresh:	5.0
Bioaccumulation	Salt:	5.0

Bioaccumulation	Fresh:	5.0
Bioaccumulation	Salt:	5.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
NAAQS/NESHAPS:	2.3E+0	µg/m ³
Cancer Risk:		mg/m ³
Non Cancer Risk:		mg/m ³

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:	2.0E-1	MCL/MCLG:
Cancer Risk:		Cancer Risk:
Non Cancer Risk:		Non Cancer Risk:

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
Cancer Risk:	2.0E-1	mg/L
Non Cancer Risk:		mg/L
Non Cancer Risk:		mg/L

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:		pCi/m ³
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:	2.0E-1	mg/L
Cancer Risk:		mg/L
Non Cancer Risk:		mg/L

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
FDAAL:		ppm
Cancer Risk:		mg/kg
Non Cancer Risk:		mg/kg

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
ACUTE		
Fresh CMC:		µg/L
Salt CMC:		µg/L

<u>CHRONIC</u>		
Fresh CCC:		µg/L
Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Trichloroethane, 1,1,2-

CAS Number: 000079-00-5

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	4.0E-3	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
Oral Slope:	5.7E-2	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	C		
Inhal Slope:	5.7E-2	(mg/kg/day)^-1	HEAST
Inhal Wt-of-Evid:	C		
Oral ED10:	2.8E+0	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	C		
Inhal ED10:	2.8E+0	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	C		
Oral LD50:	3.8E+2	mg/kg	ACGIH
Dermal LD50:	5.4E+3	mg/kg	RTECS
Gas Inhal LC50:	5.0E+2	ppm	RTECS
Dust Inhal LC50:	1.3E+1	mg/L	RTECS

ACUTE

Fresh CMC:	$\mu\text{g/L}$
Salt CMC:	$\mu\text{g/L}$

CHRONIC

Fresh CCC:	$\mu\text{g/L}$
Salt CCC:	$\mu\text{g/L}$

Fresh Ecol LC50:	4.2E+3	$\mu\text{g/L}$	ECOTOX
Salt Ecol LC50:	3.4E+4	$\mu\text{g/L}$	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:	1.4E+4	days	FATERATE
Volatility:	1.0E+2	days	THOMAS
Photolysis:		days	
Biodeg:	3.7E+2	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:	1.4E+4	days	FATERATE
Volatility:	1.1E+0	days	THOMAS
Photolysis:		days	
Biodeg:	3.7E+2	days	FATERATE
Radio:		days	
Log Kow:	2.0E+0		CHEMFATE

Log Kow: 2.0E+0 CHEMFATE

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>
Metal Contain:	No
Organic:	Yes
Gas:	Yes
Particulate:	No
Radionuclide:	No
Rad. Element:	No
Molecular Weight:	1.3E+2
Density:	1.4E+0 g/mL @ 20.00 C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	2.3E+1	Torr	CHEMFATE
Henry's Law:	9.1E-4	atm-m3/mol	CHEMFATE
Water Solub:	4.4E+3	mg/L	CHEMFATE
Distrib Coef:	1.0E-1	ml/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:	2.0E+0		CHEMFATE
Salt BCF:			
Log Kow:	2.0E+0		CHEMFATE
Water Solub:	4.4E+3	mg/L	CHEMFATE
Geo Mean Sol:			

OTHER DATA

Melting Point:	-3.7E+1	C
Boiling Point:	1.1E+2	C
Formula:	C ₂ H ₃ Cl ₃	

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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Date: 1/28/2004
 Chemical: Trichloroethane, 1,1,2-

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000079-00-5

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	1000	Toxicity:	1000	Toxicity:	1000
Gas Mobility:	1.0000	Water Solub:	4.4E+3		
Gas Migration:	17	Distrib:	1.0E-1		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	1000	Toxicity:	1000	Fresh Tox:	100
				Salt Tox:	10
Persistence		Persistence		Persistence	
River:	0.4000	River:	0.4000	River:	0.4000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	50.0	Fresh:	50.0
		Salt:	50.0	Salt:	50.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:	3.0E-3	mg/L	Cancer Risk:	1.1E+1
Cancer Risk:	1.5E-4	mg/m ³	Cancer Risk:	1.5E-3	mg/L	Non Cancer Risk:	3.1E+2
Non Cancer Risk:		mg/m ³	Non Cancer Risk:	1.5E-1	mg/L		
						MCL:	
						UMTRCA:	
						CANCER RISK	
						Air:	pCi/m ³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:	3.0E-3	mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:	1.5E-3	mg/L	Cancer Risk:	5.5E-2	mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:	1.5E-1	mg/L	Non Cancer Risk:	5.4E+0	mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Trichloroethylene (TCE)

CAS Number: 000079-01-6

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	1.1E-2	(mg/kg/day)^-1	LIVECHEM
Oral Wt-of-Evid:	B2		
Inhal Slope:		(mg/kg/day)^-1	
Inhal Wt-of-Evid:			
Oral ED10:	1.0E+1	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	B2		
Inhal ED10:	1.0E+1	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	B2		
Oral LD50:	6.0E+3	mg/kg	ACGIH
Dermal LD50:	2.0E+4	mg/kg	RTECS
Gas Inhal LC50:	4.8E+3	ppm	RTECS
Dust Inhal LC50:	3.3E+1	mg/L	RTECS

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L

Fresh Ecol LC50:	1.9E+3	μg/L	ECOTOX
Salt Ecol LC50:	1.2E+4	μg/L	ECOTOX

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:	3.2E+2	days	FATERATE
Volatility:	1.0E+2	days	THOMAS
Photolysis:		days	
Biodeg:	3.6E+2	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:	3.2E+2	days	FATERATE
Volatility:	1.1E+0	days	THOMAS
Photolysis:		days	
Biodeg:	3.6E+2	days	FATERATE
Radio:		days	
Log Kow:	2.4E+0		CHEMFATE

Log Kow: 2.4E+0 CHEMFATE

MOBILITY			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	7.3E+1	Torr	CHEMFATE
Henry's Law:	1.0E-2	atm-m3/mol	CHEMFATE
Water Solub:	1.5E+3	mg/L	CHEMFATE
Distrib Coef:	3.3E-1	ml/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	1.7E+1		ECOTOX
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:	1.7E+1		ECOTOX
Salt BCF:			
Log Kow:	2.4E+0		CHEMFATE
Water Solub:	1.5E+3	mg/L	CHEMFATE
Geo Mean Sol:			

OTHER DATA			
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Melting Point:	-8.5E+1	C
Boiling Point:	8.7E+1	C
Formula:	C2 H Cl3	

CLASS INFORMATION			
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Class Parent Substance

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Trichloroethylene (TCE)

CAS Number: 000079-01-6

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10	Toxicity:	10	Toxicity:	10
Gas Mobility:	1.0000	Water Solub:	1.5E+3		
Gas Migration:	17	Distrib:	3.3E-1		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10	Toxicity:	10	Fresh Tox:	100
				Salt Tox:	10
Persistence		Persistence		Persistence	
River:	0.4000	River:	0.4000	River:	0.4000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	50.0	Fresh:	50.0
		Salt:	50.0	Salt:	50.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		<u>µg/m³</u>	MCL/MCLG:	5.0E-3	<u>mg/L</u>	Cancer Risk:	5.8E+1
Cancer Risk:		<u>mg/m³</u>	Cancer Risk:	7.7E-3	<u>mg/L</u>	Non Cancer Risk:	
Non Cancer Risk:		<u>mg/m³</u>	Non Cancer Risk:		<u>mg/L</u>		
						MCL:	<u>pCi/L</u>
						UMTRCA:	<u>pCi/kg</u>
						CANCER RISK	
						Air:	<u>pCi/m³</u>
						DW:	<u>pCi/L</u>
						FC:	<u>pCi/kg</u>
						Soil Ing:	<u>pCi/kg</u>
						Soil Gam:	<u>pCi/kg</u>

SURFACE WATER PATHWAY

DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:	5.0E-3	<u>mg/L</u>	FDAAL:		<u>ppm</u>	ACUTE		
Cancer Risk:	7.7E-3	<u>mg/L</u>	Cancer Risk:	2.9E-1	<u>mg/kg</u>	Fresh CMC:		<u>µg/L</u>
Non Cancer Risk:		<u>mg/L</u>	Non Cancer Risk:		<u>mg/kg</u>	Salt CMC:		<u>µg/L</u>
						CHRONIC		
						Fresh CCC:		<u>µg/L</u>
						Salt CCC:		<u>µg/L</u>

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Trichlorofluoromethane

CAS Number: 000075-69-4

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-1	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:	2.0E-1	mg/kg/day	HEAST	Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	No		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.4E+2		
Oral ED10 Wgt:				Density:	1.5E+0	g/mL @ 17.20 C	
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	3.7E+3	mg/kg	ACGIH				
Dermal LD50:		mg/kg					
Gas Inhal LC50:	1.3E+5	ppm	ACGIH				
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:		µg/L					
Salt Ecol LC50:		µg/L					

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	1.0E+2	days	THOMAS
Photolysis:		days	
Biodeg:	3.6E+2	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:	1.1E+0	days	THOMAS
Photolysis:		days	
Biodeg:	3.6E+2	days	FATERATE
Radio:		days	
Log Kow:	2.5E+0		CHEMFATE

MOBILITY			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	8.0E+2	Torr	CHEMFATE
Henry's Law:	9.7E-2	atm-m3/mol	CHEMFATE
Water Solub:	1.1E+3	mg/L	CHEMFATE
Distrib Coef:	2.4E-1	ml/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
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FOOD CHAIN

Fresh BCF:
 Salt BCF:

ENVIRONMENTAL

Fresh BCF:
 Salt BCF:

Log Kow: 2.5E+0
 Water Solub: 1.1E+3
 Geo Mean Sol:

mg/L CHEMFATE

OTHER DATA		
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Melting Point: -1.1E+2 C
 Boiling Point: 2.4E+1 C
 Formula: C Cl3 F

CLASS INFORMATION		
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<u>Class</u>	<u>Parent Substance</u>	
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REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Trichlorofluoromethane

CAS Number: 000075-69-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	10
Gas Mobility:	1.0000
Gas Migration:	17

Parameter	Value
Toxicity:	10
Water Solub:	1.1E+3
Distrib:	2.4E-1
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E+0

Parameter	Value
Toxicity:	10

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	10

Parameter	Value
Toxicity:	10

Parameter	Value
Fresh Tox:	0
Salt Tox:	0

Persistence	
River:	0.4000
Lake:	1.0000

Persistence	
River:	0.4000
Lake:	1.0000

Persistence	
River:	0.4000
Lake:	1.0000

Bioaccumulation	
Fresh:	50.0
Salt:	50.0

Bioaccumulation	
Fresh:	50.0
Salt:	50.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m ³
Cancer Risk:		mg/m ³
Non Cancer Risk:	7.3E-1	mg/m ³

Parameter	Value	Unit
MCL/MCLG:		MCL/MCLG:
Cancer Risk:		Cancer Risk:
Non Cancer Risk:	1.1E+1	Non Cancer Risk:

Parameter	Value	Unit
Cancer Risk:		mg/L
Non Cancer Risk:	2.3E+4	mg/L

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK:		pCi/kg
Air:		pCi/m ³
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit
MCL/MCLG:		mg/L
Cancer Risk:		mg/L
Non Cancer Risk:	1.1E+1	mg/L

Parameter	Value	Unit
FDAAL:		ppm
Cancer Risk:		mg/kg

Parameter	Value	Unit
ACUTE		
Fresh CMC:		µg/L
Salt CMC:		µg/L

CHRONIC	
Fresh CCC:	
Salt CCC:	

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Trichlorophenol, 2,4,6-

CAS Number: 000088-06-2

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	1.1E-2	(mg/kg/day)^-1	IRIS	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	Yes		
Inhal Slope:	1.1E-2	(mg/kg/day)^-1	IRIS	Radionuclide:	No		
Inhal Wt-of-Evid:	B2			Rad. Element:	No		
Oral ED10:	1.3E+1	mg/kg/day	EPA_ED10	Molecular Weight:	2.0E+2		
Oral ED10 Wgt:	B2			Density:	1.5E+0	g/mL @ 75.00 C	
Inhal ED10:	1.3E+1	mg/kg/day	EPA_ED10				
Inhal ED10 Wgt:	B2						
Oral LD50:	8.2E+2	mg/kg	RTECS				
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	1.0E+2	µg/L	ECOTOX				
Salt Ecol LC50:	1.1E+3	µg/L	ECOTOX				
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:	1.5E+4	days	CHEMFATE	Vapor Press:	2.4E-2	Torr	CHEMFATE
Volatility:	1.4E+2	days	THOMAS	Henry's Law:	7.8E-6	atm-m3/mol	CHEMFATE
Photolysis:	4.0E+0	days	FATERATE	Water Solub:	8.0E+2	mg/L	CHEMFATE
Biodeg:	7.0E+1	days	FATERATE	Distrib Coef:	7.6E-1	ml/g	RTI_ION
Radio:		days		Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:	1.5E+4	days	CHEMFATE				
Volatility:	1.5E+1	days	THOMAS				
Photolysis:	4.0E+0	days	FATERATE				
Biodeg:	7.0E+1	days	FATERATE				
Radio:		days					
Log Kow:	3.7E+0		CHEMFATE				
ENVIRONMENTAL							
				Fresh BCF:	1.1E+3		ECOTOX
				Salt BCF:			
				Log Kow:	3.7E+0		CHEMFATE
				Water Solub:	8.0E+2	mg/L	CHEMFATE
				Geo Mean Sol:			
OTHER DATA							
				Melting Point:	6.9E+1	C	
				Boiling Point:	2.5E+2	C	
				Formula:	C6 H3 Cl3 O		
CLASS INFORMATION							
Class	Parent Substance						

REFERENCE 2

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Date: 1/28/2004
 Chemical: Trichlorophenol, 2,4,6-

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000088-06-2

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10	Toxicity:	10	Toxicity:	10
Gas Mobility:	0.2000	Water Solub:	8.0E+2		
Gas Migration:	11	Distrib:	7.6E-1		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10	Toxicity:	10	Fresh Tox:	1000
				Salt Tox:	100
Persistence		Persistence		Persistence	
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	0.4000	Lake:	0.4000	Lake:	0.4000
		Bioaccumulation		Bioaccumulation	
		Fresh:	5000.0	Fresh:	50000.0
		Salt:	5000.0	Salt:	50000.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:	5.8E+1
Cancer Risk:	7.8E-4	mg/m ³	Cancer Risk:	7.7E-3	mg/L	Non Cancer Risk:	
Non Cancer Risk:		mg/m ³	Non Cancer Risk:		mg/L		
						MCL:	
						UMTRCA:	
						CANCER RISK:	
						Air:	pCi/L
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:	7.7E-3	mg/L	Cancer Risk:	2.9E-1	mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Trichloropropene, 1,2,3-

CAS Number: 000096-18-4

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	6.0E-3	mg/kg/day	IRIS	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:	7.0E+0	(mg/kg/day) ⁻¹	HEAST	Gas:	Yes		
Oral Wt-of-Evid:	B2			Particulate:	No		
Inhal Slope:		(mg/kg/day) ⁻¹		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.5E+2		
Oral ED10 Wgt:				Density:	1.4E+0	g/mL @ 20.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	3.4E+2	mg/kg	ACGIH				
Dermal LD50:	5.2E+2	mg/kg	RTECS				
Gas Inhal LC50:	5.0E+2	ppm	RTECS				
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	2.6E+4	µg/L	ECOTOX				
Salt Ecol LC50:		µg/L					
PERSISTENCE							
Parameter	Value	Unit	Source				
LAKE - Halflives							
Hydrolysis:	1.6E+4	days	CHEMFATE				
Volatility:	1.1E+2	days	THOMAS				
Photolysis:		days					
Biodeg:	3.6E+2	days	FATERATE				
Radio:		days					
RIVER - Halflives							
Hydrolysis:	1.6E+4	days	CHEMFATE				
Volatility:	1.2E+0	days	THOMAS				
Photolysis:		days					
Biodeg:	3.6E+2	days	FATERATE				
Radio:		days					
Log Kow:	2.0E+0		CHEMFATE				

MOBILITY			
Parameter	Value	Unit	Source
Vapor Press:	3.7E+0	Torr	CHEMFATE
Henry's Law:	4.1E-4	atm-m ³ /mol	CHEMFATE
Water Solub:	1.8E+3	mg/L	CHEMFATE
Distrib Coef:	1.4E-1	ml/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL			
Parameter	Value	Unit	Source
Fresh BCF:			
Salt BCF:			
Log Kow:	2.0E+0		CHEMFATE
Water Solub:	1.8E+3		CHEMFATE
Geo Mean Sol:		mg/L	

OTHER DATA			
Parameter	Value	Unit	Source
Melting Point:	-1.5E+1	C	
Boiling Point:	1.6E+2	C	
Formula:	C ₃ H ₅ Cl ₃		

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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Date: 1/28/2004
 Chemical: Trichloropropene, 1,2,3-

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000096-18-4

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:	1.0000	Water Solub:	1.8E+3		
Gas Migration:	11	Distrib:	1.4E-1		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	10
				Salt Tox:	10
Persistence		Persistence		Persistence	
River:	0.4000	River:	0.4000	River:	0.4000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	5.0	Fresh:	5.0
		Salt:	5.0	Salt:	5.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIOMUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:	9.1E-2
Cancer Risk:		mg/m ³	Cancer Risk:	1.2E-5	mg/L	Non Cancer Risk:	4.7E+2
Non Cancer Risk:		mg/m ³	Non Cancer Risk:	2.2E-1	mg/L		
						MCL:	
						UMTRCA:	
						CANCER RISK	
						Air:	pCi/L
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L	FDAAL:		ppm
Cancer Risk:	1.2E-5	mg/L	Cancer Risk:	4.5E-4	mg/kg
Non Cancer Risk:	2.2E-1	mg/L	Non Cancer Risk:	8.1E+0	mg/kg
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Trifluralin (Treflan)

CAS Number: 001582-09-8

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	7.5E-3	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
Oral Slope:	7.7E-3	(mg/kg/day)^-1	IRIS
Oral Wt-of-Evid:	C		
Inhal Slope:		(mg/kg/day)^-1	
Inhal Wt-of-Evid:			
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:	1.9E+3	mg/kg	RTECS
Dermal LD50:	5.0E+3	mg/kg	RTECS
Gas Inhal LC50:		ppm	
Dust Inhal LC50:	2.3E+0	mg/L	RTECS

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L

Fresh Ecol LC50:	6.5E+0	μg/L	ECOTOX
Salt Ecol LC50:	5.0E+0	μg/L	ECOTOX

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	1.6E+2	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:	3.4E+0	days	THOMAS
Photolysis:		days	
Biodeg:		days	
Radio:		days	
Log Kow:	5.4E+0		CHEMFATE

Chemical Name: Trifluralin (Treflan) CAS: 001582-09-8

MOBILITY			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	4.8E-5	Torr	CHEMFATE
Henry's Law:	2.6E-5	atm-m3/mol	CHEMFATE
Water Solub:	8.1E+0	mg/L	CHEMFATE
Distrib Coef:	3.9E+1	ml/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			

Fresh BCF:
Salt BCF:

<u>ENVIRONMENTAL</u>			
Fresh BCF:	1.5E+5		ECOTOX
Salt BCF:	1.2E+4		ECOTOX
Log Kow:	5.4E+0		CHEMFATE
Water Solub:	8.1E+0		CHEMFATE
Geo Mean Sol:		mg/L	

OTHER DATA			
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Melting Point:	4.9E+1	C
Boiling Point:	1.4E+2	C
Formula:	C13 H16 F3 N3 O4	

CLASS INFORMATION			
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Class Parent Substance

REFERENCE 2

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Date: 1/28/2004
 Chemical: Trifluralin (Treflan)

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 001582-09-8

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	100	Toxicity:	100	Toxicity:	100
Gas Mobility:	0.0200	Water Solub:	8.1E+0		
Gas Migration:	11	Distrib:	3.9E+1		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-2		
		Non Liq. Karst:	2.0E-1		
		Non Karst:	2.0E-3		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	100	Toxicity:	100	Fresh Tox:	10000
				Salt Tox:	10000
Persistence		Persistence		Persistence	
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	5000.0	Fresh:	50000.0
		Salt:	5000.0	Salt:	50000.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:	8.3E+1
Cancer Risk:		mg/m ³	Cancer Risk:	1.1E-2	mg/L	Non Cancer Risk:	5.9E+2
Non Cancer Risk:		mg/m ³	Non Cancer Risk:	2.7E-1	mg/L		
						MCL:	
						UMTRCA:	
						CANCER RISK	
						Air:	pCi/m ³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L	FDAAL:		ppm
Cancer Risk:	1.1E-2	mg/L	Cancer Risk:	4.1E-1	mg/kg
Non Cancer Risk:	2.7E-1	mg/L	Non Cancer Risk:	1.0E+1	mg/kg
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:

REFERENCE 2

Page 378

Date: 1/28/2004
 Chemical: Trinitrobenzene, 1,3,5-

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000099-35-4

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-2	mg/kg/day	IRIS
Inhal RfD:		mg/kg/day	
Oral Slope:		(mg/kg/day) ⁻¹	
Oral Wt-of-Evid:			
Inhal Slope:		(mg/kg/day) ⁻¹	
Inhal Wt-of-Evid:			
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:			
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:			
Oral LD50:	2.8E+2	mg/kg	RTECS
Dermal LD50:	2.0E+3	mg/kg	RTECS
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		μg/L	
Salt CMC:		μg/L	
CHRONIC			
Fresh CCC:		μg/L	
Salt CCC:		μg/L	
Fresh Ecol LC50:	3.4E+2	μg/L	ECOTOX
Salt Ecol LC50:		μg/L	

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>
Metal Contain:	No
Organic:	Yes
Gas:	Yes
Particulate:	Yes
Radionuclide:	No
Rad. Element:	No
Molecular Weight:	2.1E+2
Density:	1.5E+0 g/mL @ 152.00 C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	6.4E-6	Torr	PHYSPROP
Henry's Law:	3.3E-10	atm-m3/mol	PHYSPROP
Water Solub:	2.8E+2	mg/L	PHYSPROP
Distrib Coef:	2.2E+0	ml/g	DITOR_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			

Fresh BCF:
 Salt BCF:

ENVIRONMENTAL

Fresh BCF:	1.2E+0	PHYSPROP
Salt BCF:	2.8E+2	PHYSPROP
Log Kow:		mg/L
Water Solub:		
Geo Mean Sol:		

OTHER DATA

Melting Point:	1.2E+2	C
Boiling Point:	3.2E+2	C
Formula:	C ₆ H ₃ N ₃ O ₆	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	

Log Kow: 1.2E+0 PHYSPROP

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

Page 379

Date: 1/28/2004
 Chemical: Trinitrobenzene, 1,3,5-

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000099-35-4

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	100	Toxicity:	100	Toxicity:	100
Gas Mobility:	0.0020	Water Solub:	2.8E+2		
Gas Migration:	0	Distrib:	2.2E+0		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	100	Toxicity:	100	Fresh Tox:	1000
				Salt Tox:	1000
Persistence		Persistence		Persistence	
River:	0.4000	River:	0.4000	River:	0.4000
Lake:	0.0700	Lake:	0.0700	Lake:	0.0700
		Bioaccumulation		Bioaccumulation	
		Fresh:	5.0	Fresh:	5.0
		Salt:	5.0	Salt:	5.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIOMUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:	
Cancer Risk:		mg/m ³	Cancer Risk:		mg/L	Non Cancer Risk:	2.3E+3
Non Cancer Risk:		mg/m ³	Non Cancer Risk:	1.1E+0	mg/L		
						MCL:	
						UMTRCA:	
						CANCER RISK	
						Air:	pCi/m ³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L	FDAAL:		ppm
Cancer Risk:		mg/L	Cancer Risk:		mg/kg
Non Cancer Risk:	1.1E+0	mg/L	Non Cancer Risk:	4.1E+1	mg/kg
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Tritium

CAS Number: 010028-17-8

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:	Food: 1.44E-13 Soil: 2.20E-13 Water: 1.12E-13	(pCi)^-1	HEAST	Gas:	Yes		
Oral Wt-of-Evid:	A	(pCi)^-1	HEAST	Particulate:	No		
Inhal Slope:	2.0E-13	(pCi)^-1	HEAST	Radionuclide:	Yes		
Inhal Wt-of-Evid:	A			Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	6.0E+0		
Oral ED10 Wgt:				Density:	2.7E-1	g/mL @ 20.62	K
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE				MOBILITY			
Fresh CMC:		µg/L		Parameter	Value	Unit	Source
Salt CMC:		µg/L		Vapor Press:	7.6E+2	Torr	LIVECHEM
CHRONIC				Henry's Law:		atm-m3/mol	
Fresh CCC:		µg/L		Water Solub:		mg/L	
Salt CCC:		µg/L		Distrib Coef:	9.9E+0	ml/g	DITOR_KD
Fresh Ecol LC50:		µg/L		Geo Mean Sol:		mg/L	
Salt Ecol LC50:		µg/L					
PERSISTENCE				BIOACCUMULATION			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives				FOOD CHAIN			
Hydrolysis:		days		Fresh BCF:			
Volatility:		days		Salt BCF:			
Photolysis:		days					
Biodeg:		days					
Radio:	4.5E+3	days	ICRP38				
RIVER - Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:	4.5E+3	days	ICRP38				
Log Kow:							
CLASS INFORMATION				OTHER DATA			
				Melting Point:	-2.5E+2	C	
				Boiling Point:	-2.5E+2	C	
				Formula:	3H		

Log Kow:

CLASS INFORMATION

Class	Parent Substance
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REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Tritium

CAS Number: 010028-17-8

ASSIGNED FACTOR VALUES

AIR PATHWAY

Parameter	Value
Toxicity:	100
Gas Mobility:	1.0000
Gas Migration:	17

GROUND WATER PATHWAY

Parameter	Value
Toxicity:	100
Water Solub:	
Distrib:	9.9E+0
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	
Non Karst:	

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	100

SURFACE WATER PATHWAY

DRINKING WATER

Parameter	Value
Toxicity:	100

HUMAN FOOD CHAIN

Parameter	Value
Toxicity:	100

ENVIRONMENTAL

Parameter	Value
Fresh Tox:	100
Salt Tox:	100

Persistence	River:	1.0000
River:	1.0000	
Lake:	1.0000	

Persistence	River:	1.0000
River:	1.0000	
Lake:	1.0000	

Persistence	River:	1.0000
River:	1.0000	
Lake:	1.0000	

Bioaccumulation	Fresh:	0.5
Salt:	0.5	

Bioaccumulation	Fresh:	0.5
Salt:	0.5	

BENCHMARKS

AIR PATHWAY

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:		mg/kg
Cancer Risk:		mg/m ³	Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg
Non Cancer Risk:		mg/m ³	Non Cancer Risk:		mg/L			

GROUND WATER PATHWAY

Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg	Salt CMC:		µg/L

RADIONUCLIDE

Air:	2.4E+1	pCi/m ³
DW:	4.3E+2	pCi/L
FC:	1.2E+4	pCi/kg
Soil Ing:	3.6E+6	pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

Parameter	Value	Unit
MCL/MCLG:		mg/L
Cancer Risk:		mg/L
Non Cancer Risk:		mg/L

HUMAN FOOD CHAIN

Parameter	Value	Unit
FDAAL:		ppm
Cancer Risk:		mg/kg

ENVIRONMENTAL

ACUTE		
Fresh CMC:		µg/L
Salt CMC:		µg/L
CHRONIC		
Fresh CCC:		µg/L
Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Uranium 232 (radionuclide)

CAS Number: 014158-29-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	Food: 3.85E-10 Soil: 5.74E-10 Water: 2.92E-10	(pCi) ⁻¹	HEAST
Oral Wt-of-Evid:	A	(pCi) ⁻¹	HEAST
Inhal Slope:	1.9E-8	(pCi) ⁻¹	HEAST
Inhal Wt-of-Evid:	A		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L
Fresh Ecol LC50:	μg/L
Salt Ecol LC50:	μg/L

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.6E+4	days	SSG-Rad
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.6E+4	days	SSG-Rad

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Metal Contain:	Yes		
Organic:	No		
Gas:	No		
Particulate:	Yes		
Radionuclide:	Yes		
Rad. Element:	No		
Molecular Weight:	2.3E+2		
Density:	1.9E+1	g/mL @ 25.00 C	

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m ³ /mol	
Water Solub:		mg/L	
Distrib Coef:	4.0E-1	ml/g	SSG-Rad
Geo Mean Sol:	1.0E+2	mg/L	CALC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:
Salt BCF:

Log Kow:			
Water Solub:			
Geo Mean Sol:	1.0E+2	mg/L	CALC

OTHER DATA

Melting Point:	1.1E+3	C
Boiling Point:	3.8E+3	C
Formula:	U-232	

CLASS INFORMATION

<u>Class</u>	<u>Parent Substance</u>
GW Mob:	007440-61-1
Other:	007440-61-1

REFERENCE 2

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Date: 1/28/2004

Chemical: Uranium 232 (radionuclide)

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 014158-29-3

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:		Water Solub:			
Gas Migration:		Distrib:	4.0E-1		
		Geo Mean Sol:	1.0E+2		
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	2.0E-1		
		Non Karst:	2.0E-1		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	10000
				Salt Tox:	10000
Persistence		Persistence		Persistence	
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	0.5	Fresh:	0.5
		Salt:	0.5	Salt:	0.5

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIOMUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:	
Cancer Risk:		mg/m ³	Cancer Risk:		mg/L	Non Cancer Risk:	
Non Cancer Risk:		mg/m ³	Non Cancer Risk:		mg/L		
						UMTRCA:	
						CANCER RISK	
						Air:	2.4E-4
						DW:	1.6E-1
						FC:	4.6E+0
						Soil Ing:	1.4E+3
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L	FDAAL:		ppm
Cancer Risk:		mg/L	Cancer Risk:		mg/kg
Non Cancer Risk:		mg/L	Non Cancer Risk:		mg/kg
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Uranium 233 (radionuclide)

CAS Number: 013968-55-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	Food: 9.69E-11 Soil: 1.60E-10 Water: 7.18E-11	(pCi) ⁻¹	HEAST
Oral Wt-of-Evid:	A		
Inhal Slope:	1.2E-8	(pCi) ⁻¹	HEAST
Inhal Wt-of-Evid:	A		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L
Fresh Ecol LC50:	μg/L
Salt Ecol LC50:	μg/L

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	5.8E+7	days	SSG-Rad
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	5.8E+7	days	SSG-Rad

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Metal Contain:	Yes		
Organic:	No		
Gas:	No		
Particulate:	Yes		
Radionuclide:	Yes		
Rad. Element:	No		
Molecular Weight:	2.3E+2		
Density:	1.9E+1	g/mL @ 25.00 C	

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m ³ /mol	
Water Solub:		mg/L	
Distrib Coef:	4.0E-1	ml/g	SSG-Rad
Geo Mean Sol:	1.0E+2	mg/L	CALC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:
Salt BCF:

Log Kow:			
Water Solub:			
Geo Mean Sol:	1.0E+2	mg/L	CALC

OTHER DATA

Melting Point:	1.1E+3	C
Boiling Point:	3.8E+3	C
Formula:	U-233	

CLASS INFORMATION

<u>Class</u>	<u>Parent Substance</u>
GW Mob:	007440-61-1
Other:	007440-61-1

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Uranium 233 (radionuclide)

CAS Number: 013968-55-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	10000
Gas Mobility:	
Gas Migration:	

Parameter	Value
Toxicity:	10000
Water Solub:	
Distrib:	4.0E-1
Geo Mean Sol:	1.0E+2
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	2.0E-1
Non Karst:	2.0E-1

Parameter	Value
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	10000

Parameter	Value
Toxicity:	10000

Parameter	Value
Fresh Tox:	10000
Salt Tox:	10000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	0.5
Salt:	0.5

Bioaccumulation	
Fresh:	0.5
Salt:	0.5

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCLIDE

Parameter	Value	Unit
NAAQS/NESHAPS:		$\mu\text{g}/\text{m}^3$
Cancer Risk:		mg/m3
Non Cancer Risk:		mg/m3

Parameter	Value	Unit
MCL/MCLG:		MCL/MCLG:
Cancer Risk:		Cancer Risk:
Non Cancer Risk:		Non Cancer Risk:

Parameter	Value	Unit
Cancer Risk:		mg/L
Non Cancer Risk:		mg/L

Parameter	Value	Unit
MCL:	2.0E+1	pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:	4.1E-4	pCi/m3
DW:	6.6E-1	pCi/L
FC:	1.8E+1	pCi/kg
Soil Ing:	5.0E+3	pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit
MCL/MCLG:		mg/L
Cancer Risk:		mg/L
Non Cancer Risk:		mg/L

Parameter	Value	Unit
FDAAL:		ppm
Cancer Risk:		mg/kg
Non Cancer Risk:		mg/kg

Parameter	Value	Unit
ACUTE		
Fresh CMC:		
Salt CMC:		

CHRONIC		
Fresh CCC:		$\mu\text{g}/\text{L}$
Salt CCC:		$\mu\text{g}/\text{L}$

REFERENCE 2

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Date: 1/28/2004
 Chemical: Uranium 234 (radionuclide)

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 013966-29-5

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:	Food: 9.55E-11 Soil: 1.58E-10 Water: 7.07E-11	(pCi)^-1	HEAST	Gas:	No		
Oral Wt-of-Evid:	A	(pCi)^-1	HEAST	Particulate:	Yes		
Inhal Slope:	1.1E-8	(pCi)^-1	HEAST	Radionuclide:	Yes		
Inhal Wt-of-Evid:	A			Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	2.3E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	1.9E+1	g/mL @ 25.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE				MOBILITY			
Fresh CMC:		µg/L		Parameter	Value	Unit	Source
Salt CMC:		µg/L		Vapor Press:		Torr	
CHRONIC				Henry's Law:		atm-m ³ /mol	
Fresh CCC:		µg/L		Water Solub:		mg/L	
Salt CCC:		µg/L		Distrib Coef:	4.0E-1	ml/g	SSG-Rad
PERSISTENCE				Geo Mean Sol:	1.0E+2	mg/L	CALC
RIVER - Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:	8.8E+7	days	SSG-Rad				
LAKE - Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:	8.8E+7	days	SSG-Rad				
CLASS INFORMATION							
Log Kow:							
Class		Parent Substance					
GW Mob:		007440-61-1					
Other:		007440-61-1					

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Uranium 234 (radionuclide)

CAS Number: 013966-29-5

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	10000
Gas Mobility:	
Gas Migration:	

Parameter	Value
Toxicity:	10000
Water Solub:	
Distrib:	4.0E-1
Geo Mean Sol:	1.0E+2
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	2.0E-1
Non Karst:	2.0E-1

Parameter	Value
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	10000

Parameter	Value
Toxicity:	10000

Parameter	Value
Fresh Tox:	10000
Salt Tox:	10000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	0.5
Salt:	0.5

Bioaccumulation	
Fresh:	0.5
Salt:	0.5

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCIDE

Parameter	Value	Unit
NAAQS/NESHAPS:	10000	µg/m ³
Cancer Risk:		mg/m ³

Parameter	Value	Unit
MCL/MCLG:	10000	MCL/MCLG:
Non Cancer Risk:		mg/m ³

Parameter	Value	Unit
Cancer Risk:	10000	mg/L
Non Cancer Risk:		mg/L

Parameter	Value	Unit
MCL:	2.0E+1	pCi/L
UMTRCA:		pCi/kg
CANCER RISK:		
Air:	4.2E-4	pCi/m ³
DW:	6.7E-1	pCi/L
FC:	1.8E+1	pCi/kg
Soil Ing:	5.0E+3	pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit
MCL/MCLG:	10000	mg/L
Non Cancer Risk:		mg/L

Parameter	Value	Unit
FDAAL:	10000	ppm
Non Cancer Risk:		mg/kg

Parameter	Value	Unit
ACUTE		
Fresh CMC:		µg/L
Salt CMC:		µg/L

CHRONIC

Fresh CCC:	10000	µg/L
Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Uranium 235(+D) (radionuclide)

CAS Number: 015117-96-1

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	Food: 9.76E-11 Soil: 1.63E-10 Water: 7.18E-11	(pCi) ⁻¹	HEAST
Oral Wt-of-Evid:	A		
Inhal Slope:	1.0E-8	(pCi) ⁻¹	HEAST
Inhal Wt-of-Evid:	A		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	

ACUTE

Fresh CMC:	$\mu\text{g/L}$
Salt CMC:	$\mu\text{g/L}$

CHRONIC

Fresh CCC:	$\mu\text{g/L}$
Salt CCC:	$\mu\text{g/L}$
Fresh Ecol LC50:	$\mu\text{g/L}$
Salt Ecol LC50:	$\mu\text{g/L}$

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.6E+11	days	SSG-Rad
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.6E+11	days	SSG-Rad

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>
Metal Contain:	Yes
Organic:	No
Gas:	No
Particulate:	Yes
Radionuclide:	Yes
Rad. Element:	No
Molecular Weight:	2.4E+2
Density:	1.9E+1 g/mL @ 25.00 C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m ³ /mol	
Water Solub:		mg/L	
Distrib Coef:	4.0E-1	ml/g	SSG-Rad
Geo Mean Sol:	1.0E+2	mg/L	CALC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:	
Salt BCF:	

Log Kow:	
Water Solub:	
Geo Mean Sol:	1.0E+2 mg/L

OTHER DATA

Melting Point:	1.1E+3	C
Boiling Point:	3.8E+3	C
Formula:	U-235(+D)	

CLASS INFORMATION

<u>Class</u>	<u>Parent Substance</u>
GW Mob:	007440-61-1
Other:	007440-61-1

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Uranium 235(+D) (radionuclide)

CAS Number: 015117-96-1

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity: 10000

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity: 10000

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity: 10000

Gas Mobility:

Gas Migration:

Water Solub:

Distrib: 4.0E-1

Geo Mean Sol: 1.0E+2

Mobility:

Liquid Karst: 1.0E+0

Non Karst: 1.0E+0

Non Liq. Karst: 2.0E-1

Non Karst: 2.0E-1

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity: 10000

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity: 10000

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Fresh Tox: 10000

Salt Tox: 10000

Persistence

River: 1.0000

Lake: 1.0000

Persistence

River: 1.0000

Lake: 1.0000

Persistence

River: 1.0000

Lake: 1.0000

Bioaccumulation

Fresh: 0.5

Salt: 0.5

Bioaccumulation

Fresh: 0.5

Salt: 0.5

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>
------------------	--------------

NAAQS/NESHAPS:

<u>Unit</u>

µg/m³

<u>Parameter</u>	<u>Value</u>
------------------	--------------

MCL/MCLG:

<u>Parameter</u>	<u>Value</u>
------------------	--------------

mg/L

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Cancer Risk:

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Non Cancer Risk:

<u>Parameter</u>	<u>Value</u>
------------------	--------------

mg/kg

Cancer Risk:

Non Cancer Risk:

mg/kg

mg/kg

Non Cancer Risk:

Non Cancer Risk:

mg/L

mg

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Uranium 236(+D) (radionuclide)

CAS Number: 013982-70-2

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day		Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:	Food: 9.03E-11 Soil: 1.49E-10 Water: 6.70E-11	(pCi)^-1	HEAST	Gas:	No		
Oral Wt-of-Evid:	A	(pCi)^-1	HEAST	Particulate:	Yes		
Inhal Slope:	1.0E-8	(pCi)^-1	HEAST	Radionuclide:	Yes		
Inhal Wt-of-Evid:	A			Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	2.4E+2		
Oral ED10 Wgt:		mg/kg/day		Density:	1.9E+1	g/mL @ 25.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:		mg/kg/day					
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:		µg/L					
Salt Ecol LC50:		µg/L					
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives				Vapor Press:		Torr	
Hydrolysis:		days		Henry's Law:		atm-m3/mol	
Volatility:		days		Water Solub:		mg/L	
Photolysis:		days		Distrib Coef:	4.0E-1	ml/g	SSG-Rad
Biodeg:		days		Geo Mean Sol:	1.0E+2	mg/L	CALC
Radio:	8.4E+8	days	SSG-Rad				
RIVER - Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:	8.4E+8	days	SSG-Rad				
Log Kow:							
CLASS INFORMATION				OTHER DATA			
Class	Parent Substance			Melting Point:	1.1E+3	C	
GW Mob:	007440-61-1			Boiling Point:	3.8E+3	C	
Other:	007440-61-1			Formula:	U-236(+D)		

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Uranium 236(+D) (radionuclide)

CAS Number: 013982-70-2

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	10000
Gas Mobility:	
Gas Migration:	

Parameter	Value
Toxicity:	10000
Water Solub:	
Distrib:	4.0E-1
Geo Mean Sol:	1.0E+2
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	2.0E-1
Non Karst:	2.0E-1

Parameter	Value
Toxicity:	10000

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	10000

Parameter	Value
Toxicity:	10000

Parameter	Value
Fresh Tox:	10000
Salt Tox:	10000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Persistence	
River:	1.0000
Lake:	1.0000

Bioaccumulation	
Fresh:	0.5
Salt:	0.5

Bioaccumulation	
Fresh:	0.5
Salt:	0.5

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCIDE

Parameter	Value	Unit
NAAQS/NESHAPS:		$\mu\text{g}/\text{m}^3$
Cancer Risk:		mg/m^3
Non Cancer Risk:		mg/m^3

Parameter	Value	Unit
MCL/MCLG:		MCL/MCLG:
Cancer Risk:		mg/L
Non Cancer Risk:		mg/L

Parameter	Value	Unit
Cancer Risk:		mg/L
Non Cancer Risk:		mg/L

Parameter	Value	Unit
MCL:	2.0E+1	pCi/L
UMTRCA:		pCi/kg
CANCER RISK		
Air:	4.5E-4	pCi/m ³
DW:	7.1E-1	pCi/L
FC:	1.9E+1	pCi/kg
Soil Ing:	5.3E+3	pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit
MCL/MCLG:		mg/L
Cancer Risk:		mg/L
Non Cancer Risk:		mg/L

Parameter	Value	Unit
FDAAL:		ppm
Cancer Risk:		mg/kg
Non Cancer Risk:		mg/kg

Parameter	Value	Unit
ACUTE		
Fresh CMC:		$\mu\text{g}/\text{L}$
Salt CMC:		$\mu\text{g}/\text{L}$

CHRONIC		
Fresh CCC:		$\mu\text{g}/\text{L}$
Salt CCC:		$\mu\text{g}/\text{L}$

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Uranium 238(+D) (radionuclide)

CAS Number: 007440-61-1

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	Food: 1.21E-10 Soil: 2.10E-10 Water: 8.71E-11	(pCi)^-1	HEAST
Oral Wt-of-Evid:	A	(pCi)^-1	
Inhal Slope:	9.3E-9	(pCi)^-1	HEAST
Inhal Wt-of-Evid:	A		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	

CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:		µg/L	
Salt Ecol LC50:		µg/L	

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.6E+12	days	SSG-Rad
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	1.6E+12	days	SSG-Rad

Log Kow:

CLASS INFORMATION

Class Parent Substance

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>
Metal Contain:	Yes
Organic:	No
Gas:	No
Particulate:	Yes
Radionuclide:	Yes
Rad. Element:	No
Molecular Weight:	2.4E+2
Density:	1.9E+1 g/mL @ 25.00 C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	4.0E-1	ml/g	SSG-Rad
Geo Mean Sol:	1.0E+2	mg/L	CALC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF: Salt BCF:			

ENVIRONMENTAL

Fresh BCF:
Salt BCF:

Log Kow:			
Water Solub:			
Geo Mean Sol:	1.0E+2	mg/L	CALC

OTHER DATA

Melting Point:	1.1E+3	C
Boiling Point:	3.8E+3	C
Formula:	U-238(+D)	

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Uranium 238(+D) (radionuclide)

CAS Number: 007440-61-1

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity: 10000

Gas Mobility:
Gas Migration:

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity: 10000

Water Solub:
Distrib: 4.0E-1
Geo Mean Sol: 1.0E+2
Mobility:
Liquid Karst: 1.0E+0
Non Karst: 1.0E+0
Non Liq. Karst: 2.0E-1
Non Karst: 2.0E-1

<u>Parameter</u>	<u>Value</u>
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Toxicity: 10000

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
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Toxicity: 10000

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity: 10000

<u>Parameter</u>	<u>Value</u>
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Fresh Tox: 10000

Salt Tox: 10000

Persistence
River: 1.0000
Lake: 1.0000

Persistence
River: 1.0000
Lake: 1.0000

Persistence
River: 1.0000
Lake: 1.0000

Bioaccumulation
Fresh: 5000.0
Salt: 5000.0

Bioaccumulation
Fresh: 5000.0
Salt: 5000.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>
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NAAQS/NESHAPS:

<u>Unit</u>

µg/m³

MCL/MCLG:

<u>Parameter</u>

Cancer Risk:

mg/m³

Non Cancer Risk:

mg/m³

<u>Parameter</u>

Cancer Risk:

mg/L

Non Cancer Risk:

mg/L

<u>Parameter</u>	<u>Value</u>
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Cancer Risk:

mg/L

Non Cancer Risk:

mg/L

<u>Parameter</u>

MCL:

mg/kg

UMTRCA:

mg/kg

<u>Parameter</u>	<u>Value</u>
------------------	--------------

2.0E+1

pCi/L

<u>Unit</u>

pCi/L

pCi/kg

CANCER RISK

Air: 5.1E-4

DW: 5.5E-1

FC: 1.5E+1

Soil Ing: 3.8E+3

Soil Gam: pCi/kg

pCi/m³

pCi/L

pCi/kg

pCi/kg

pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
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MCL/MCLG:

<u>Unit</u>

mg/L

<u>Parameter</u>	<u>Value</u>
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FDAAL:

<u>Parameter</u>

ppm

<u>Parameter</u>	<u>Value</u>
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ACUTE

Fresh CMC:

Salt CMC:

<u>Unit</u>

µg/L

µg/L

Cancer Risk:

mg/L

Cancer Risk:

mg/kg

Non Cancer Risk:

mg/L

Non Cancer Risk:

mg/kg

Fresh CCC:

Salt CCC:

µg/L

µg/L

CHRONIC

Fresh CCC:

Salt CCC:

µg/L

µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Vanadium

CAS Number: 007440-62-2

TOXICITY				PHYSICAL CHARACTERISTICS			
----------	--	--	--	--------------------------	--	--	--

Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	7.0E-3	mg/kg/day	HEAST	Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:		(mg/kg/day)^-1		Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	5.1E+1		
Oral ED10 Wgt:				Density:	6.1E+0	g/mL @ 18.70	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		μg/L		Vapor Press:		Torr	
Salt CMC:		μg/L		Henry's Law:		atm-m3/mol	
CHRONIC							
Fresh CCC:		μg/L		Water Solub:		mg/L	
Salt CCC:		μg/L		Distrib Coef:	1.0E+3	ml/g	BAES_KD
Fresh Ecol LC50:		μg/L		Geo Mean Sol:	7.0E+2	mg/L	CALC
Salt Ecol LC50:		μg/L					

PERSISTENCE			
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Parameter	Value	Unit	Source
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:		days	

Log Kow:

MOBILITY			
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Parameter	Value	Unit	Source
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	1.0E+3	ml/g	BAES_KD
Geo Mean Sol:	7.0E+2	mg/L	CALC

BIOACCUMULATION			
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Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:			
Log Kow:			
Water Solub:			
Geo Mean Sol:	7.0E+2	mg/L	CALC

OTHER DATA

Melting Point:	1.9E+3	C
Boiling Point:	3.4E+3	C
Formula:	V	

CLASS INFORMATION			
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Class Parent Substance

REFERENCE 2

Page 395

Date: 1/28/2004
 Chemical: Vanadium

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 007440-62-2

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter Value

Toxicity: 100

Gas Mobility:

Gas Migration:

Parameter Value

Toxicity: 100

Water Solub:

Distrib: 1.0E+3

Geo Mean Sol: 7.0E+2

Mobility:

Liquid Karst: 1.0E+0

Non Karst: 1.0E-2

Non Liq. Karst: 1.0E+0

Non Karst: 1.0E-2

Parameter Value

Toxicity: 100

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value

Toxicity: 100

Parameter Value

Toxicity: 100

Parameter Value

Fresh Tox: 0

Salt Tox: 0

Persistence

River: 1.0000

Lake: 1.0000

Persistence

River: 1.0000

Lake: 1.0000

Persistence

River: 1.0000

Lake: 1.0000

Bioaccumulation

Fresh: 500.0

Salt: 500.0

Bioaccumulation

Fresh: 500.0

Salt: 500.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIOMUCIDE

Parameter Value

NAAQS/NESHAPS:

Cancer Risk:

Non Cancer Risk:

Unit

µg/m³

mg/m³

mg/m³

Parameter Value

MCL/MCLG:

Cancer Risk:

Non Cancer Risk: 2.6E-1

Parameter Value

mg/L

mg/L

mg/L

Parameter Value

Cancer Risk:

Non Cancer Risk:

5.5E+2

Parameter Value

mg/kg

mg/kg

mg/kg

Parameter Value

MCL:

UMTRCA:

CANCER RISK

Unit

pCi/L

pCi/L

pCi/kg

pCi/kg

pCi/kg

Air:

DW:

FC:

Soil Ing:

Soil Gam:

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter Value

MCL/MCLG:

Cancer Risk:

Non Cancer Risk: 2.6E-1

Unit

mg/L

mg/L

mg/L

Parameter Value

FDAAL:

Cancer Risk:

Non Cancer Risk: 9.5E+0

Unit

ppm

mg/kg

mg/kg

Parameter Value

ACUTE

Fresh CMC:

Salt CMC:

Unit

µg/L

µg/L

CHRONIC

Fresh CCC:

Salt CCC:

µg/L

µg/L

REFERENCE 2

Page 396

Date: 1/28/2004
 Chemical: Vinyl acetate

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000108-05-4

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	1.0E+0	mg/kg/day	HEAST	Metal Contain:	No		
Inhal RfD:	5.7E-2	mg/kg/day	IRIS	Organic:	Yes		
Oral Slope:		(mg/kg/day) ⁻¹		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	No		
Inhal Slope:		(mg/kg/day) ⁻¹		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	8.6E+1		
Oral ED10 Wgt:				Density:	9.3E-1	g/mL @ 20.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	1.6E+3	mg/kg	ACGIH				
Dermal LD50:	2.3E+3	mg/kg	ACGIH				
Gas Inhal LC50:	2.5E+3	ppm	ACGIH				
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	1.4E+4	µg/L	ECOTOX				
Salt Ecol LC50:	1.0E+4	µg/L	ECOTOX				
PERSISTENCE							
Parameter	Value	Unit	Source	BIOACCUMULATION			
LAKE - Halflives							
Hydrolysis:	7.3E+0	days	CHEMFATE	Parameter	Value	Unit	Source
Volatility:	8.2E+1	days	THOMAS	FOOD CHAIN			
Photolysis:	2.7E-1	days	CHEMFATE	Fresh BCF:			
Biodeg:		days		Salt BCF:			
Radio:		days					
RIVER - Halflives							
Hydrolysis:	7.3E+0	days	CHEMFATE	ENVIRONMENTAL			
Volatility:	9.2E-1	days	THOMAS	Fresh BCF:			
Photolysis:	2.7E-1	days	CHEMFATE	Salt BCF:			
Biodeg:		days		Log Kow:	7.3E-1		CHEMFATE
Radio:		days		Water Solub:	2.0E+4	mg/L	CHEMFATE
Log Kow:	7.3E-1		CHEMFATE	Geo Mean Sol:			
CLASS INFORMATION							
Class	Parent Substance						

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Vinyl acetate

CAS Number: 000108-05-4

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
Toxicity:	10
Gas Mobility:	1.0000
Gas Migration:	17

<u>Parameter</u>	<u>Value</u>
Toxicity:	10
Water Solub:	2.0E+4
Distrib:	7.9E-1
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E+0

<u>Parameter</u>	<u>Value</u>
Toxicity:	10

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
Toxicity:	10

<u>Parameter</u>	<u>Value</u>
Toxicity:	10

<u>Parameter</u>	<u>Value</u>
Fresh Tox:	10
Salt Tox:	100

Persistence	
River:	0.0700
Lake:	0.0700

Persistence	
River:	0.0700
Lake:	0.0700

Persistence	
River:	0.0700
Lake:	0.0700

Bioaccumulation	
Fresh:	0.5
Salt:	0.5

Bioaccumulation	
Fresh:	0.5
Salt:	0.5

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:	
Cancer Risk:	
Non Cancer Risk:	2.1E-1

<u>Parameter</u>	<u>Value</u>
Unit	
$\mu\text{g}/\text{m}^3$	
MCL/MCLG:	

<u>Parameter</u>	<u>Value</u>
Unit	
mg/L	
Cancer Risk:	

<u>Parameter</u>	<u>Value</u>
Unit	
mg/kg	
MCL:	

UMTRCA:	
CANCER RISK	
Air:	pCi/m^3
DW:	pCi/L
FC:	pCi/kg
Soil Ing:	pCi/kg
Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
MCL/MCLG:	
Cancer Risk:	
Non Cancer Risk:	3.7E+1

<u>Parameter</u>	<u>Value</u>
Unit	
mg/L	
FDAAL:	

<u>Parameter</u>	<u>Value</u>
ACUTE	
Fresh CMC:	

Salt CMC:	
CHRONIC	
Fresh CCC:	$\mu\text{g}/\text{L}$

Salt CCC:

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Vinyl chloride

CAS Number: 000075-01-4

TOXICITY				PHYSICAL CHARACTERISTICS			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	3.0E-3	mg/kg/day	IRIS
Inhal RfD:	2.9E-2	mg/kg/day	IRIS
Oral Slope:	1.5E+0	(mg/kg/day) ⁻¹	IRIS
Oral Wt-of-Evid:	A		
Inhal Slope:	3.1E-2	(mg/kg/day) ⁻¹	IRIS
Inhal Wt-of-Evid:	A		
Oral ED10:	5.5E-2	mg/kg/day	EPA_ED10
Oral ED10 Wgt:	A		
Inhal ED10:	5.5E-2	mg/kg/day	EPA_ED10
Inhal ED10 Wgt:	A		
Oral LD50:	5.0E+2	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:	1.8E+1	ppm	RTECS
Dust Inhal LC50:		mg/L	

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L
Fresh Ecol LC50:	μg/L
Salt Ecol LC50:	μg/L

PERSISTENCE			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	1.7E-1	days	THOMAS
Photolysis:	7.5E-1	days	CHEMFATE
Biodeg:	1.8E+2	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:	1.7E-1	days	THOMAS
Photolysis:	7.5E-1	days	CHEMFATE
Biodeg:	1.8E+2	days	FATERATE
Radio:		days	
Log Kow:	1.4E+0		CHEMFATE

PHYSICAL CHARACTERISTICS			
--------------------------	--	--	--

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Metal Contain:	No		
Organic:	Yes		
Gas:	Yes		
Particulate:	No		
Radionuclide:	No		
Rad. Element:	No		
Molecular Weight:	6.3E+1		
Density:	9.1E-1	g/mL @ 20.00 C	

MOBILITY			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	3.0E+3	Torr	CHEMFATE
Henry's Law:	2.7E-2	atm-m ³ /mol	CHEMFATE
Water Solub:	8.8E+3	mg/L	CHEMFATE
Distrib Coef:	3.7E-2	ml/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
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<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:	1.4E+0		CHEMFATE
Salt BCF:	8.8E+3		CHEMFATE
Log Kow:	1.4E+0	mg/L	
Water Solub:	8.8E+3		
Geo Mean Sol:			

OTHER DATA			
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Melting Point:	-1.5E+2	C
Boiling Point:	-1.3E+1	C
Formula:	C ₂ H ₃ Cl	

CLASS INFORMATION			
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Class Parent Substance

REFERENCE 2

Page 399

Date: 1/28/2004
 Chemical: Vinyl chloride

CAS Number: 000075-01-4

SUPERFUND CHEMICAL DATA MATRIX

ASSIGNED FACTOR VALUES		
AIR PATHWAY	GROUND WATER PATHWAY	SOIL EXPOSURE PATHWAY

Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Toxicity:	10000
Gas Mobility:	1.0000	Water Solub:	8.8E+3		
Gas Migration:	17	Distrib:	3.7E-2		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	10000	Toxicity:	10000	Fresh Tox:	0
Persistence		Persistence		Salt Tox:	0
River:	0.0007	River:	0.0007	River:	0.0007
Lake:	0.0700	Lake:	0.0700	Lake:	0.0700
		Bioaccumulation		Bioaccumulation	
		Fresh:	5.0	Fresh:	5.0
		Salt:	5.0	Salt:	5.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:	2.0E-3	mg/L	Cancer Risk:	4.3E-1
Cancer Risk:	2.8E-4	mg/m ³	Cancer Risk:	5.7E-5	mg/L	Non Cancer Risk:	2.3E+2
Non Cancer Risk:	1.0E-1	mg/m ³	Non Cancer Risk:	1.1E-1	mg/L		
						MCL:	
						UMTRCA:	
						CANCER RISK	
						Air:	pCi/m ³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL		
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:	2.0E-3	mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:	5.7E-5	mg/L	Cancer Risk:	2.1E-3	mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:	1.1E-1	mg/L	Non Cancer Risk:	4.1E+0	mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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Date: 1/28/2004
 Chemical: Xylene

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 001330-20-7

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E-1	mg/kg/day	IRIS
Inhal RfD:	2.9E-2	mg/kg/day	IRIS
Oral Slope:		(mg/kg/day)^-1	
Oral Wt-of-Evid:			
Inhal Slope:		(mg/kg/day)^-1	
Inhal Wt-of-Evid:			
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:	3.5E+3	mg/kg	ACGIH
Dermal LD50:	4.3E+3	mg/kg	ACGIH
Gas Inhal LC50:	6.7E+3	ppm	ACGIH
Dust Inhal LC50:		mg/L	
ACUTE			
Fresh CMC:		µg/L	
Salt CMC:		µg/L	
CHRONIC			
Fresh CCC:		µg/L	
Salt CCC:		µg/L	
Fresh Ecol LC50:	2.7E+3	µg/L	ECOTOX
Salt Ecol LC50:	7.4E+3	µg/L	ECOTOX

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>
Metal Contain:	No
Organic:	Yes
Gas:	Yes
Particulate:	No
Radionuclide:	No
Rad. Element:	No
Molecular Weight:	1.1E+2
Density:	8.6E-1
	C @

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	8.0E+0	Torr	PHYSPROP
Henry's Law:	6.6E-3	atm-m3/mol	PHYSPROP
Water Solub:	1.1E+2	mg/L	PHYSPROP
Distrib Coef:	2.9E+2	ml/g	DITOR_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:	3.2E+0		PHYSPROP
Salt BCF:	1.1E+2	mg/L	PHYSPROP
Log Kow:	3.2E+0		
Water Solub:	1.1E+2		
Geo Mean Sol:			

OTHER DATA

Melting Point:			
Boiling Point:	1.4E+2		C
Formula:	C8 H10		

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	9.1E+1	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+1	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:	9.8E-1	days	THOMAS
Photolysis:		days	
Biodeg:	2.8E+1	days	FATERATE
Radio:		days	
Log Kow:	3.2E+0		PHYSPROP

CLASS INFORMATION

<u>Class</u>	<u>Parent Substance</u>
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REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Xylene

CAS Number: 001330-20-7

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	100	Toxicity:	100	Toxicity:	100
Gas Mobility:	1.0000	Water Solub:	1.1E+2		
Gas Migration:	17	Distrib:	2.9E+2		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-2		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E-2		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Parameter	Value	Parameter	Value
Toxicity:	100	Toxicity:	100	Fresh Tox:	100
				Salt Tox:	100
Persistence		Persistence		Persistence	
River:	0.4000	River:	0.4000	River:	0.4000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	50.0	Fresh:	50.0
		Salt:	50.0	Salt:	50.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
Parameter	Value	Unit	Parameter	Value	Unit	Parameter	Value
NAAQS/NESHAPS:		µg/m³	MCL/MCLG:		mg/L	Cancer Risk:	
Cancer Risk:		mg/m³	Cancer Risk:		mg/L	Non Cancer Risk:	1.6E+4
Non Cancer Risk:	1.0E-1	mg/m³	Non Cancer Risk:	7.3E+0	mg/L	Unit	
						MCL:	pCi/L
						UMTRCA:	pCi/kg
						CANCER RISK	
						Air:	pCi/m³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
Parameter	Value	Unit	Parameter	Value	Unit
MCL/MCLG:		mg/L	FDAAL:		ppm
Cancer Risk:		mg/L	Cancer Risk:		mg/kg
Non Cancer Risk:	7.3E+0	mg/L	Non Cancer Risk:	2.7E+2	mg/kg
					Parameter
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Xylene, m-

CAS Number: 000108-38-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:	2.0E+0	mg/kg/day	HEAST
Inhal RfD:		mg/kg/day	
Oral Slope:		(mg/kg/day) ⁻¹	
Oral Wt-of-Evid:			
Inhal Slope:		(mg/kg/day) ⁻¹	
Inhal Wt-of-Evid:			
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:	5.3E+3	mg/kg	ACGIH
Dermal LD50:	1.2E+4	mg/kg	ACGIH
Gas Inhal LC50:	5.3E+3	ppm	ACGIH
Dust Inhal LC50:		mg/L	

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L

Fresh Ecol LC50:	5.3E+3	μg/L	ECOTOX
Salt Ecol LC50:	2.9E+3	μg/L	ECOTOX

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	9.1E+1	days	THOMAS
Photolysis:	1.2E-1	days	CHEMFATE
Biodeg:	2.8E+1	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:	9.8E-1	days	THOMAS
Photolysis:	1.2E-1	days	CHEMFATE
Biodeg:	2.8E+1	days	FATERATE
Radio:		days	
Log Kow:	3.2E+0		CHEMFATE

Log Kow: 3.2E+0 CHEMFATE

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>
Metal Contain:	No
Organic:	Yes
Gas:	Yes
Particulate:	No
Radionuclide:	No
Rad. Element:	No
Molecular Weight:	1.1E+2
Density:	8.6E-1 g/mL @ 20.00 C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:	8.5E+0	Torr	CHEMFATE
Henry's Law:	7.3E-3	atm-m3/mol	CHEMFATE
Water Solub:	1.6E+2	mg/L	CHEMFATE
Distrib Coef:	8.1E-1	mL/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			

Fresh BCF:
 Salt BCF:

ENVIRONMENTAL

Fresh BCF:	3.2E+0	
Salt BCF:	1.6E+2	
Log Kow:	3.2E+0	CHEMFATE

Water Solub: 1.6E+2 mg/L CHEMFATE

OTHER DATA

Melting Point:	-4.8E+1	C
Boiling Point:	1.4E+2	C
Formula:	C8 H10	

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

Page 403

SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Xylene, m-

CAS Number: 000108-38-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

Parameter	Value
Toxicity:	1
Gas Mobility:	1.0000
Gas Migration:	17

Parameter	Value
Toxicity:	1
Water Solub:	1.6E+2
Distrib:	8.1E-1
Geo Mean Sol:	
Mobility:	
Liquid Karst:	1.0E+0
Non Karst:	1.0E+0
Non Liq. Karst:	1.0E+0
Non Karst:	1.0E+0

Parameter	Value
Toxicity:	1

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value
Toxicity:	1

Parameter	Value
Toxicity:	1

Parameter	Value
Fresh Tox:	100
Salt Tox:	100

Persistence	
River:	0.0007
Lake:	0.0700

Persistence	
River:	0.0007
Lake:	0.0700

Persistence	
River:	0.0007
Lake:	0.0700

Bioaccumulation	
Fresh:	500.0
Salt:	500.0

Bioaccumulation	
Fresh:	500.0
Salt:	500.0

BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

Parameter	Value	Unit
NAAQS/NESHAPS:	1.0E+1	µg/m ³
Cancer Risk:	1.0E+1	mg/m ³
Non Cancer Risk:	7.3E+1	mg/m ³

Parameter	Value	Unit
MCL/MCLG:	1.0E+1	MCL/MCLG:
Cancer Risk:	1.0E+1	mg/L

Parameter	Value	Unit
Cancer Risk:	1.6E+5	mg/kg
Non Cancer Risk:	1.6E+5	mg/kg

Parameter	Value	Unit
MCL:		pCi/L
UMTRCA:		pCi/kg
CANCER RISK		pCi/kg
Air:		pCi/m ³
DW:		pCi/L
FC:		pCi/kg
Soil Ing:		pCi/kg
Soil Gam:		pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

Parameter	Value	Unit
MCL/MCLG:	1.0E+1	mg/L
Cancer Risk:	1.0E+1	mg/L

Parameter	Value	Unit
FDAAI:	2.7E+3	ppm
Cancer Risk:	2.7E+3	mg/kg

Parameter	Value	Unit
ACUTE		
Fresh CMC:		µg/L

CHRONIC	
Fresh CCC:	
Salt CCC:	

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Xylene, o-

CAS Number: 000095-47-6

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	2.0E+0	mg/kg/day	HEAST	Metal Contain:	No		
Inhal RfD:		mg/kg/day		Organic:	Yes		
Oral Slope:		(mg/kg/day)^-1		Gas:	Yes		
Oral Wt-of-Evid:				Particulate:	No		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	1.1E+2		
Oral ED10 Wgt:				Density:	8.8E-1	g/mL @ 10.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:	5.0E+3	mg/kg	RTECS				
Dermal LD50:		mg/kg					
Gas Inhal LC50:	4.6E+3	ppm	ACGIH				
Dust Inhal LC50:	3.0E+1	mg/L	RTECS				
ACUTE							
Fresh CMC:		µg/L					
Salt CMC:		µg/L					
CHRONIC							
Fresh CCC:		µg/L					
Salt CCC:		µg/L					
Fresh Ecol LC50:	5.3E+3	µg/L	ECOTOX				
Salt Ecol LC50:	1.1E+3	µg/L	ECOTOX				
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		Vapor Press:	6.6E+0	Torr	CHEMFATE
Volatility:	9.1E+1	days	THOMAS	Henry's Law:	5.2E-3	atm-m3/mol	CHEMFATE
Photolysis:		days		Water Solub:	1.8E+2	mg/L	CHEMFATE
Biodeg:	2.8E+1	days	FATERATE	Distrib Coef:	7.3E-1	ml/g	SSG_KD
Radio:		days		Geo Mean Sol:		mg/L	
RIVER - Halflives							
Hydrolysis:		days					
Volatility:	9.8E-1	days	THOMAS				
Photolysis:		days					
Biodeg:	2.8E+1	days	FATERATE				
Radio:		days					
Log Kow:	3.1E+0		CHEMFATE				
CLASS INFORMATION							
Class	Parent Substance						

REFERENCE 2

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Date: 1/28/2004
 Chemical: Xylene, o-

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000095-47-6

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	1	Toxicity:	1	Toxicity:	1
Gas Mobility:	1.0000	Water Solub:	1.8E+2		
Gas Migration:	17	Distrib:	7.3E-1		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	1	Toxicity:	1	Fresh Tox:	100
				Salt Tox:	100
Persistence		Persistence		Persistence	
River:	0.4000	River:	0.4000	River:	0.4000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	50.0	Fresh:	50.0
		Salt:	50.0	Salt:	50.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:	1.0E+1	mg/L	Cancer Risk:	
Cancer Risk:		mg/m ³	Cancer Risk:		mg/L	Non Cancer Risk:	1.6E+5
Non Cancer Risk:		mg/m ³	Non Cancer Risk:	7.3E+1	mg/L	MCL:	
						mg/kg	
						UMTRCA:	
						CANCER RISK	
						Air:	pCi/m ³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:	1.0E+1	mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:		µg/L
Non Cancer Risk:	7.3E+1	mg/L	Non Cancer Risk:	2.7E+3	mg/kg	Salt CMC:		µg/L
						CHRONIC		
						Fresh CCC:		µg/L
						Salt CCC:		µg/L

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Xylene, p-

CAS Number: 000106-42-3

TOXICITY				PHYSICAL CHARACTERISTICS			
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Parameter	Value	Unit	Source
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:		(mg/kg/day) ⁻¹	
Oral Wt-of-Evid:			
Inhal Slope:		(mg/kg/day) ⁻¹	
Inhal Wt-of-Evid:			
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:	5.0E+3	mg/kg	RTECS
Dermal LD50:		mg/kg	
Gas Inhal LC50:	3.9E+3	ppm	ACGIH
Dust Inhal LC50:	1.5E+1	mg/L	RTECS

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L

Fresh Ecol LC50:	2.6E+3	μg/L	ECOTOX
Salt Ecol LC50:	2.0E+3	μg/L	ECOTOX

PERSISTENCE			
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Parameter	Value	Unit	Source
LAKE - Halflives			
Hydrolysis:		days	
Volatility:	9.1E+1	days	THOMAS
Photolysis:	8.3E-2	days	CHEMFATE
Biodeg:	2.8E+1	days	FATERATE
Radio:		days	
RIVER - Halflives			
Hydrolysis:		days	
Volatility:	9.8E-1	days	THOMAS
Photolysis:	8.3E-2	days	CHEMFATE
Biodeg:	2.8E+1	days	FATERATE
Radio:		days	
Log Kow:	3.1E+0		CHEMFATE

Log Kow: 3.1E+0 CHEMFATE

MOBILITY			
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Parameter	Value	Unit	Source
Vapor Press:	8.9E+0	Torr	CHEMFATE
Henry's Law:	7.7E-3	atm-m3/mol	CHEMFATE
Water Solub:	1.6E+2	mg/L	CHEMFATE
Distrib Coef:	7.8E-1	mL/g	SSG_KD
Geo Mean Sol:		mg/L	

BIOACCUMULATION			
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Parameter	Value	Unit	Source
FOOD CHAIN			
Fresh BCF:			
Salt BCF:			

ENVIRONMENTAL

Fresh BCF:			
Salt BCF:			
Log Kow:	3.1E+0		CHEMFATE
Water Solub:	1.6E+2	mg/L	CHEMFATE
Geo Mean Sol:			

OTHER DATA			
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Melting Point:	1.3E+1	C
Boiling Point:	1.4E+2	C
Formula:	C8 H10	

CLASS INFORMATION			
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Class Parent Substance

REFERENCE 2

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Date: 1/28/2004
 Chemical: Xylene, p-

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 000106-42-3

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10	Toxicity:	10	Toxicity:	10
Gas Mobility:	1.0000	Water Solub:	1.6E+2		
Gas Migration:	17	Distrib:	7.8E-1		
		Geo Mean Sol:			
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E+0		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E+0		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10	Toxicity:	10	Fresh Tox:	100
				Salt Tox:	100
Persistence		Persistence		Persistence	
River:	0.0007	River:	0.0007	River:	0.0007
Lake:	0.0700	Lake:	0.0700	Lake:	0.0700
		Bioaccumulation		Bioaccumulation	
		Fresh:	50.0	Fresh:	50.0
		Salt:	50.0	Salt:	50.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIONUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:	1.0E+1	mg/L	Cancer Risk:	
Cancer Risk:		mg/m ³	Cancer Risk:		mg/L	Non Cancer Risk:	
Non Cancer Risk:		mg/m ³	Non Cancer Risk:		mg/L		
						MCL:	
						UMTRCA:	
						CANCER RISK	
						Air:	pCi/m ³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Garm:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:	1.0E+1	mg/L	FDAAL:	ppm	
Cancer Risk:		mg/L	Cancer Risk:	mg/kg	
Non Cancer Risk:		mg/L	Non Cancer Risk:	mg/kg	
					ACUTE
					Fresh CMC:
					Salt CMC:
					CHRONIC
					Fresh CCC:
					Salt CCC:

REFERENCE 2

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Zinc

CAS Number: 007440-66-6

TOXICITY				PHYSICAL CHARACTERISTICS			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
Oral RfD:	3.0E-1	mg/kg/day	IRIS	Metal Contain:	Yes		
Inhal RfD:		mg/kg/day		Organic:	No		
Oral Slope:		(mg/kg/day)^-1		Gas:	No		
Oral Wt-of-Evid:				Particulate:	Yes		
Inhal Slope:		(mg/kg/day)^-1		Radionuclide:	No		
Inhal Wt-of-Evid:				Rad. Element:	No		
Oral ED10:		mg/kg/day		Molecular Weight:	6.5E+1		
Oral ED10 Wgt:				Density:	7.1E+0	g/mL @ 25.00	C
Inhal ED10:		mg/kg/day					
Inhal ED10 Wgt:							
Oral LD50:		mg/kg					
Dermal LD50:		mg/kg					
Gas Inhal LC50:		ppm					
Dust Inhal LC50:		mg/L					
ACUTE							
Fresh CMC:	1.2E+2	D, E, K	µg/L	WATCRIT			
Salt CMC:	9.0E+1	D, bb	µg/L	WATCRIT			
CHRONIC							
Fresh CCC:	1.2E+2	D, E, K	µg/L	WATCRIT			
Salt CCC:	8.1E+1	D, bb	µg/L	WATCRIT			
Fresh Ecol LC50:	1.0E+1		µg/L	ECOTOX			
Salt Ecol LC50:	3.3E+1		µg/L	ECOTOX			
PERSISTENCE				MOBILITY			
Parameter	Value	Unit	Source	Parameter	Value	Unit	Source
LAKE - Halflives							
Hydrolysis:		days		Vapor Press:		Torr	
Volatility:		days		Henry's Law:	2.5E-2	atm-m3/mol	PHYSPROP
Photolysis:		days		Water Solub:		mg/L	
Biodeg:		days		Distrib Coef:	6.2E+1	ml/g	SSG_KD
Radio:		days		Geo Mean Sol:	1.4E+3	mg/L	CALC
RIVER - Halflives							
Hydrolysis:		days					
Volatility:		days					
Photolysis:		days					
Biodeg:		days					
Radio:		days					
Log Kow:							
CLASS INFORMATION				BIOACCUMULATION			
Class	Parent Substance			Parameter	Value	Unit	Source
				FOOD CHAIN			
				Fresh BCF:	2.8E+0		ECOTOX
				Salt BCF:	1.2E+5		ECOTOX
ENVIRONMENTAL							
				Fresh BCF:	1.5E+4		ECOTOX
				Salt BCF:	1.7E+5		ECOTOX
				Log Kow:			
				Water Solub:			
				Geo Mean Sol:	1.4E+3	mg/L	CALC
OTHER DATA							
				Melting Point:	4.2E+2	C	
				Boiling Point:	9.1E+2	C	
				Formula:	Zn		

Log Kow:

CLASS INFORMATION

Class Parent Substance

REFERENCE 2

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Date: 1/28/2004
Chemical: Zinc

SUPERFUND CHEMICAL DATA MATRIX

CAS Number: 007440-66-6

ASSIGNED FACTOR VALUES

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10	Toxicity:	10	Toxicity:	10
Gas Mobility:		Water Solub:			
Gas Migration:		Distrib:	6.2E+1		
		Geo Mean Sol:	1.4E+3		
		Mobility:			
		Liquid Karst:	1.0E+0		
		Non Karst:	1.0E-2		
		Non Liq. Karst:	1.0E+0		
		Non Karst:	1.0E-2		

SURFACE WATER PATHWAY

DRINKING WATER		HUMAN FOOD CHAIN		ENVIRONMENTAL	
<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>	<u>Parameter</u>	<u>Value</u>
Toxicity:	10	Toxicity:	10	Fresh Tox:	10
				Salt Tox:	100
Persistence		Persistence		Persistence	
River:	1.0000	River:	1.0000	River:	1.0000
Lake:	1.0000	Lake:	1.0000	Lake:	1.0000
		Bioaccumulation		Bioaccumulation	
		Fresh:	5.0	Fresh:	50000.0
		Salt:	50000.0	Salt:	50000.0

BENCHMARKS

AIR PATHWAY		GROUND WATER PATHWAY		SOIL EXPOSURE PATHWAY		RADIOMUCLIDE	
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>
NAAQS/NESHAPS:		µg/m ³	MCL/MCLG:		mg/L	Cancer Risk:	
Cancer Risk:		mg/m ³	Cancer Risk:		mg/L	Non Cancer Risk:	2.3E+4
Non Cancer Risk:		mg/m ³	Non Cancer Risk:	1.1E+1	mg/L		
						Unit	
						MCL:	pCi/L
						UMTRCA:	pCi/kg
						CANCER RISK	
						Air:	pCi/m ³
						DW:	pCi/L
						FC:	pCi/kg
						Soil Ing:	pCi/kg
						Soil Gam:	pCi/kg

SURFACE WATER PATHWAY

DRINKING WATER			HUMAN FOOD CHAIN			ENVIRONMENTAL		
<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>Unit</u>
MCL/MCLG:		mg/L	FDAAL:		ppm	ACUTE		
Cancer Risk:		mg/L	Cancer Risk:		mg/kg	Fresh CMC:	1.2E+2 D, E, K	µg/L
Non Cancer Risk:	1.1E+1	mg/L	Non Cancer Risk:	4.1E+2	mg/kg	Salt CMC:	9.0E+1 D, bb	µg/L
						CHRONIC		
						Fresh CCC:	1.2E+2 D, E, K	µg/L
						Salt CCC:	8.1E+1 D, bb	µg/L

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004
 Chemical: Zinc 65 (radionuclide)

CAS Number: 013982-39-3

TOXICITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Oral RfD:		mg/kg/day	
Inhal RfD:		mg/kg/day	
Oral Slope:	Food: 1.54E-11 Soil: 2.45E-11 Water: 1.17E-11	(pCi)^-1	HEAST
Oral Wt-of-Evid:	A		
Inhal Slope:	5.8E-12	(pCi)^-1	HEAST
Inhal Wt-of-Evid:	A		
Oral ED10:		mg/kg/day	
Oral ED10 Wgt:		mg/kg/day	
Inhal ED10:		mg/kg/day	
Inhal ED10 Wgt:		mg/kg/day	
Oral LD50:		mg/kg	
Dermal LD50:		mg/kg	
Gas Inhal LC50:		ppm	
Dust Inhal LC50:		mg/L	

ACUTE

Fresh CMC:	μg/L
Salt CMC:	μg/L

CHRONIC

Fresh CCC:	μg/L
Salt CCC:	μg/L
Fresh Ecol LC50:	μg/L
Salt Ecol LC50:	μg/L

PERSISTENCE

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
LAKE - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.6E+2	days	SSG-Rad
RIVER - Halflives			
Hydrolysis:		days	
Volatility:		days	
Photolysis:		days	
Biodeg:		days	
Radio:	2.6E+2	days	SSG-Rad

Log Kow:

PHYSICAL CHARACTERISTICS

<u>Parameter</u>	<u>Value</u>
Metal Contain:	Yes
Organic:	No
Gas:	No
Particulate:	Yes
Radionuclide:	Yes
Rad. Element:	No
Molecular Weight:	6.5E+1
Density:	7.1E+0 g/mL @ 25.00 C

MOBILITY

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
Vapor Press:		Torr	
Henry's Law:		atm-m3/mol	
Water Solub:		mg/L	
Distrib Coef:	6.2E+1	mL/g	SSG_KD
Geo Mean Sol:	1.4E+3	mg/L	CALC

BIOACCUMULATION

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Source</u>
FOOD CHAIN			
Fresh BCF:	2.8E+0		ECOTOX
Salt BCF:	1.2E+5		ECOTOX

ENVIRONMENTAL

Fresh BCF:	1.5E+4		ECOTOX
Salt BCF:	1.7E+5		ECOTOX

Log Kow:			
Water Solub:			
Geo Mean Sol:	1.4E+3	mg/L	CALC

OTHER DATA

Melting Point:	4.2E+2	C
Boiling Point:	9.1E+2	C
Formula:	Zn-65	

CLASS INFORMATION

<u>Class</u>	<u>Parent Substance</u>
GW Mob:	007440-66-6
Other:	007440-66-6

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SUPERFUND CHEMICAL DATA MATRIX

Date: 1/28/2004

Chemical: Zinc 65 (radionuclide)

CAS Number: 013982-39-3

ASSIGNED FACTOR VALUES

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

<u>Parameter</u>	<u>Value</u>
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Toxicity:	1000
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Gas Mobility:	
---------------	--

Gas Migration:	
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<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity:	1000
-----------	------

Water Solub:	
--------------	--

Distrib:	6.2E+1
----------	--------

Geo Mean Sol:	1.4E+3
---------------	--------

Mobility:	
-----------	--

Liquid Karst:	1.0E+0
---------------	--------

Non Karst:	1.0E-2
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Non Liq. Karst:	1.0E+0
-----------------	--------

Non Karst:	1.0E-2
------------	--------

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity:	1000
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DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity:	1000
-----------	------

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Toxicity:	1000
-----------	------

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Fresh Tox:	1000
------------	------

Persistence River:	1.0000
-----------------------	--------

River:	1.0000
--------	--------

Persistence River:	1.0000
-----------------------	--------

River:	1.0000
--------	--------

Persistence River:	1.0000
-----------------------	--------

River:	1.0000
--------	--------

Lake:	1.0000
-------	--------

Lake:	1.0000
-------	--------

Bioaccumulation Fresh:	5.0
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Salt:	50000.0
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Bioaccumulation Fresh:	50000.0
---------------------------	---------

Salt:	50000.0
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BENCHMARKS

AIR PATHWAY

GROUND WATER PATHWAY

SOIL EXPOSURE PATHWAY

RADIONUCLIDE

<u>Parameter</u>	<u>Value</u>
------------------	--------------

NAAQS/NESHAPS:	
----------------	--

<u>Unit</u>	
-------------	--

µg/m ³	
-------------------	--

<u>Parameter</u>	<u>Value</u>
------------------	--------------

MCL/MCLG:	
-----------	--

<u>Unit</u>	
-------------	--

mg/L	
------	--

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Cancer Risk:	
--------------	--

<u>Parameter</u>	<u>Value</u>
------------------	--------------

MCL:	
------	--

Cancer Risk:	
--------------	--

mg/m ³	
-------------------	--

Cancer Risk:	
--------------	--

mg/L	
------	--

Non Cancer Risk:	
------------------	--

mg/L	
------	--

<u>Parameter</u>	<u>Value</u>
------------------	--------------

3.0E+2	
--------	--

<u>Unit</u>	
-------------	--

pCi/L	
-------	--

UMTRCA:	
---------	--

CANCER RISK	
-------------	--

Air:	8.2E-1
------	--------

DW:	4.1E+0
-----	--------

FC:	1.1E+2
-----	--------

Soil Ing:	3.2E+4
-----------	--------

Soil Gam:	
-----------	--

<u>Unit</u>	
-------------	--

pCi/kg	
--------	--

pCi/kg	
--------	--

pCi/kg	
--------	--

pCi/kg	
--------	--

SURFACE WATER PATHWAY

DRINKING WATER

HUMAN FOOD CHAIN

ENVIRONMENTAL

<u>Parameter</u>	<u>Value</u>
------------------	--------------

MCL/MCLG:	
-----------	--

<u>Unit</u>	
-------------	--

mg/L	
------	--

<u>Parameter</u>	<u>Value</u>
------------------	--------------

FDAAL:	
--------	--

<u>Unit</u>	
-------------	--

ppm	
-----	--

<u>Parameter</u>	<u>Value</u>
------------------	--------------

ACUTE	
-------	--

<u>Parameter</u>	<u>Value</u>
------------------	--------------

Fresh CMC:	
------------	--

Cancer Risk:	
--------------	--

mg/L	
------	--

Cancer Risk:	
--------------	--

mg/kg	
-------	--

Non Cancer Risk:	
------------------	--

mg/kg	
-------	--

Salt CMC:	
-----------	--

mg/L	
------	--

<u>Unit</u>	
-------------	--

µg/L	
------	--

µg/L	
------	--

CHRONIC

Fresh CCC:	
------------	--

Salt CCC:	
-----------	--

<u>Unit</u>	
-------------	--

µg/L	
------	--

µg/L	
------	--

Footnote Code	Footnote Description
A	This recommended water quality criterion was derived from data for arsenic (III), but is applied here to total arsenic, which might imply that arsenic (III) and arsenic (V) are equally toxic to aquatic life and that their toxicities are additive. In the arsenic criteria document (EPA 440/5-84-033, January 1985), Species Mean Acute Values are given for both arsenic (III) and arsenic (V) for five species and the ratios of the SMAsVs for each species range from 0.6 to 1.7. Chronic values are available for both arsenic (III) and arsenic (V) for one species; for the fathead minnow, the chronic value for arsenic (V) is 0.29 times the chronic value for arsenic (III). No data are known to be available concerning whether the toxicities of the forms of arsenic to aquatic organisms are additive.
B	This criterion has been revised to reflect The Environmental Protection Agency's q1* or RfD, as contained in the Integrated Risk Information System (IRIS) as of May 17, 2002. The fish tissue bioconcentration factor (BCF) from the 1980 Ambient Water Quality Criteria document was retained in each case.
C	This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5} , move the decimal point in the recommended criterion one place to the right).
D	Freshwater and saltwater criteria for metals are expressed in terms of the dissolved metal in the water column. The recommended water quality criteria value was calculated by using the previous 304(a) aquatic life criteria expressed in terms of total recoverable metal, and multiplying it by a conversion factor (CF). The term "Conversion Factor" (CF) represents the recommended conversion factor for converting a metal criterion expressed as the total recoverable fraction in the water column to a criterion expressed as the dissolved fraction in the water column. (Conversion Factors for saltwater CCCs are not currently available. Conversion factors derived for saltwater CMCs have been used for both saltwater CMCs and CCCs). See "Office of Water Policy and Technical Guidance on Interpretation and Implementation of Aquatic Life Metals Criteria," October 1, 1993, by Martha G. Prothro, Acting Assistant Administrator for Water, available from the Water Resource center, USEPA, 401 M St., SW, mail code RC4100, Washington, DC 20460; and 40CFR§131.36(b)(1). Conversion Factors applied in the table can be found in Appendix A to the Preamble- Conversion Factors for Dissolved Metals (which is attached below).
E	The freshwater criterion for this metal is expressed as a function of hardness (mg/L) in the water column. The value given here corresponds to a hardness of 100 mg/L. Criteria values for other hardness may be calculated from the following: CMC (dissolved) = $\exp\{m_A [\ln(\text{hardness})] + b_A\}$ (CF), or CCC (dissolved) = $\exp\{m_C [\ln (\text{hardness})] + b_C\}$ (CF) and the parameters specified in Appendix B- Parameters for Calculating Freshwater Dissolved Metals Criteria That Are Hardness-Dependent (which is attached below).
F	Freshwater aquatic life values for pentachlorophenol are expressed as a function of pH, and are calculated as follows: CMC = $\exp(1.005(\text{pH}) - 4.869)$; CCC = $\exp(1.005(\text{pH}) - 5.134)$. Values displayed in table correspond to a pH of 7.8.
G	This Criterion is based on 304(a) aquatic life criterion issued in 1980, and was issued in one of the following documents: Aldrin/Dieldrin (EPA 440/5-80-019), Chlordane (EPA 440/5-80-027), DDT (EPA 440/5-80-038), Endosulfan (EPA 440/5-80-046), Endrin (EPA 440/5-80-047), Heptachlor (EPA 440/5-80-052), Hexachlorocyclohexane (EPA 440/5-80-054), Silver (EPA 440/5-80-071). The Minimum Data Requirements and derivation procedures were different in the 1980 Guidelines than in the 1985 Guidelines. For example, a "CMC" derived using the 1980 Guidelines was derived to be used as an instantaneous maximum. If assessment is to be done using an averaging period, the values given should be divided by 2 to obtain a value that is more comparable to a CMC derived using the 1985 Guidelines.
H	No criterion for protection of human health from consumption of aquatic organisms excluding water was presented in the 1980 criteria document or in the <i>1986 Quality Criteria for Water</i> . Nevertheless, sufficient information was presented in the 1980 document to allow the calculation of a criterion, even though the results of such a calculation were not shown in the document.
I	This criterion for asbestos is the Maximum Contaminant Level (MCL) developed under the Safe Drinking Water Act (SDWA).
J	This fish tissue residue criterion for methylmercury is based on a total fish consumption rate of 0.0175 kg/day.
K	This recommended criterion is based on a 304(a) aquatic life criterion that was issued in the <i>1995 Updates: Water Quality Criteria Documents for the Protection of Aquatic Life in Ambient Water</i> , (EPA-820-B-96-001, September 1996). This value was derived using the GLI Guidelines (60FR15393-15399, March 23, 1995; 40CFR132 Appendix A); the difference between the 1985 Guidelines and the GLI Guidelines are explained on page iv of the 1995 Updates. None of the decisions concerning the derivation of this criterion were affected by any considerations that are specific to the Great Lakes.
L	The CMC = $1/[(f_1/CMC_1) + (f_2/CMC_2)]$ where f1 and f2 are the fractions of total selenium that are treated as selenite and selenate, respectively, and CMC1 and CMC2 are 185.9 $\mu\text{g/l}$ and 12.82 $\mu\text{g/l}$, respectively.
M	EPA is currently reassessing the criteria for arsenic.
N	This criterion applies to total PCBs, (e.g., the sum of all congener or all isomer or homolog or Aroclor analyses.)
O	The derivation of the CCC for this pollutant (Endrin) did not consider exposure through the diet, which is probably important for aquatic life occupying upper trophic levels.
P	Although a new RfD is available in IRIS, the surface water criteria will not be revised until the National Primary Drinking Water Regulations: Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR) is completed, since public comment on the relative source contribution (RSC) for chloroform is anticipated.
Q	This recommended water quality criterion is expressed as μg free cyanide (as CN)/L.
R	This value for selenium was announced (61FR58444-58449, November 14, 1996) as a proposed GLI 303(c) aquatic life criterion. EPA is currently working on this criterion and so this value might change substantially in the near future.
S	This recommended water quality criterion for arsenic refers to the inorganic form only.

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Hazardous Substance Footnotes

Footnote Code	Footnote Description
T	This recommended water quality criterion for selenium is expressed in terms of total recoverable metal in the water column. It is scientifically acceptable to use the conversion factor (0.996- CMC or 0.922- CCC) that was used in the GLI to convert this to a value that is expressed in terms of dissolved metal.
U	The organoleptic effect criterion is more stringent than the value for priority toxic pollutants.
V	This value was derived from data for heptachlor and the criteria document provides insufficient data to estimate the relative toxicities of heptachlor and heptachlor epoxide.
W	Although EPA has not published a completed criteria document for butylbenzyl phthalate it is EPA's understanding that sufficient data exist to allow calculation of aquatic criteria. It is anticipated that industry intends to publish in the peer reviewed literature draft aquatic life criteria generated in accordance with EPA Guidelines. EPA will review such criteria for possible issuance as national WQC.
X	There is a full set of aquatic life toxicity data that show that DEHP is not toxic to aquatic organisms at or below its solubility limit.
Y	This value was derived from data for endosulfan and is most appropriately applied to the sum of alpha-endosulfan and beta-endosulfan.
Z	A more stringent MCL has been issued by EPA. Refer to drinking water regulations (40 CFR 141) or Safe Drinking Water Hotline (1-800-426-4791) for values.
aa	This criterion is based on a 304(a) aquatic life criterion issued in 1980 or 1986, and was issued in one of the following documents: Aldrin/Dieldrin (EPA 440/5-80-019), Chlordane (EPA 440/5-80-027), DDT (EPA 440/5-80- 038), Endrin (EPA 440/5-80-047), Heptachlor (EPA 440/5-80-052), Polychlorinated biphenyls (EPA 440/5-80-068), Toxaphene (EPA 440/5-86-006). This CCC is currently based on the Final Residue Value (FRV) procedure. Since the publication of the Great Lakes Aquatic Life Criteria Guidelines in 1995 (60FR15393-15399, March 23, 1995), the Agency no longer uses the Final Residue Value procedure for deriving CCCs for new or revised 304(a) aquatic life criteria. Therefore, the Agency anticipates that future revisions of this CCC will not be based on the FRV procedure.
bb	This water quality criterion is based on a 304(a) aquatic life criterion that was derived using the 1985 Guidelines (<i>Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses</i> , PB85-227049, January 1985) and was issued in one of the following criteria documents: Arsenic (EPA 440/5-84-033), Cadmium (EPA 882-R-01-001), Chromium (EPA 440/5-84-029), Copper (EPA 440/5-84-031), Cyanide (EPA 440/5- 84-028), Lead (EPA 440/5-84-027), Nickel (EPA 440/5-86-004), Pentachlorophenol (EPA 440/5-86-009), Toxaphene, (EPA 440/5-86-006), Zinc (EPA 440/5-87- 003).
cc	When the concentration of dissolved organic carbon is elevated, copper is substantially less toxic and use of Water-Effect Ratios might be appropriate.
dd	The selenium criteria document (EPA 440/5-87-006, September 1987) provides that if selenium is as toxic to saltwater fishes in the field as it is to freshwater fishes in the field, the status of the fish community should be monitored whenever the concentration of selenium exceeds 5.0 µg/L in salt water because the saltwater CCC does not take into account uptake via the food chain.
ee	This recommended water quality criterion was derived on page 43 of the mercury criteria document (EPA 440/5- 84-026, January 1985). The saltwater CCC of 0.025 µg/L given on page 23 of the criteria document is based on the Final Residue Value procedure in the 1985 Guidelines. Since the publication of the Great Lakes Aquatic Life Criteria Guidelines in 1995 (60FR15393-15399, March 23, 1995), the Agency no longer uses the Final Residue Value procedure for deriving CCCs for new or revised 304(a) aquatic life criteria.
ff	This recommended water quality criterion was derived in <i>Ambient Water Quality Criteria Saltwater Copper Addendum</i> (Draft, April 14, 1995) and was promulgated in the Interim final National Toxics Rule (60FR22228- 222237, May 4, 1995).
gg	EPA is actively working on this criterion and so this recommended water quality criterion may change substantially in the near future.
hh	This recommended water quality criterion was derived from data for inorganic mercury (II), but is applied here to total mercury. If a substantial portion of the mercury in the water column is methylmercury, this criterion will probably be under protective. In addition, even though inorganic mercury is converted to methylmercury and methylmercury bioaccumulates to a great extent, this criterion does not account for uptake via the food chain because sufficient data were not available when the criterion was derived.
ii	This criterion applies to DDT and its metabolites (i.e., the total concentration of DDT and its metabolites should not exceed this value).
F2	The derivation of this value is presented in the Red Book (EPA 440/9-76-023, July, 1976).
G2	This value is based on a 304(a) aquatic life criterion that was derived using the 1985 Guidelines (<i>Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses</i> , PB85-227049, January 1985) and was issued in one of the following criteria documents: Aluminum (EPA 440/5-86-008); Chloride (EPA 440/5-88-001); Chlорopyrifos (EPA 440/5-86-005).
I2	This value for aluminum is expressed in terms of total recoverable metal in the water column.
L2	There are three major reasons why the use of Water-Effect Ratios might be appropriate. (1) The value of 87 µg/l is based on a toxicity test with the striped bass in water with pH= 6.5-6.6 and hardness <10 mg/L. Data in "Aluminum Water-Effect Ratio for the 3M Plant Effluent Discharge, Middleway, West Virginia" (May 1994) indicate that aluminum is substantially less toxic at higher pH and hardness, but the effects of pH and hardness are not well quantified at this time. (2) In tests with the brook trout at low pH and hardness, effects increased with increasing concentrations of total aluminum even though the concentration of dissolved aluminum was constant, indicating that total recoverable is a more appropriate measurement than dissolved, at least when particulate aluminum is primarily aluminum hydroxide particles. In surface waters, however, the total recoverable procedure might measure aluminum associated with clay particles, which might be less toxic than aluminum associated with aluminum hydroxide. (3) EPA is aware of field data indicating that many high quality waters in the U.S. contain more than 87 µg aluminum/L, when either total recoverable or dissolved is measured.

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Hazardous Substance Footnotes

Conversion Factors for Dissolved Metals				
Metal	Conversion Factor Freshwater CMC	Conversion Factor Freshwater CCC	Conversion Factor Saltwater CMC	Conversion Factor Saltwater CMC
Arsenic	1.000	1.000	1.000	1.000
Cadmium	1.136672-[$\ln(\text{hardness})(0.041838)$]	1.101672-[$\ln(\text{hardness})(0.041838)$]	0.994	0.994
Chromium III	0.316	0.860	--	--
Chromium VI	0.982	0.962	0.993	0.993
Copper	0.960	0.960	0.83	0.83
Lead	1.46203-[$\ln(\text{hardness})(0.145712)$]	1.46203-[$\ln(\text{hardness})(0.145712)$]	0.951	0.951
Mercury	0.85	0.85	0.85	0.85
Nickel	0.998	0.997	0.990	0.990
Selenium	--	--	0.998	0.998
Silver	0.85	--	0.85	--
Zinc	0.978	0.986	0.946	0.946

Parameters for Calculating Freshwater Dissolved Metals That are Hardness Dependent					Conversion Factors (CF)	
Chemical	m_A	b_A	m_C	b_C	CMC	CCC
Cadmium	1.0166	-3.924	0.7409	-4.719	1.136672-[$\ln(\text{hardness})(0.041838)$]	1.101672-[$\ln(\text{hardness})(0.041838)$]
Chromium III	0.8190	3.7256	0.8190	0.6848	0.316	0.860
Copper	0.9422	-1.700	0.8545	-1.702	0.960	0.960
Lead	1.273	-1.460	1.273	-4.705	1.46203-[$\ln(\text{hardness})(0.145712)$]	1.46203-[$\ln(\text{hardness})(0.145712)$]
Nickel	0.8460	2.255	0.8460	0.0584	0.998	0.997
Silver	1.72	-6.59	--	--	0.85	--
Zinc	0.8473	0.884	0.8473	0.884	0.978	0.986

Hardness-dependent metals' criteria may be calculated from the following:

$$\text{CMC (dissolved)} = \exp \{m_A [\ln(\text{hardness})] + b_A\} \text{ (CF)}$$

$$\text{CCC (dissolved)} = \exp \{m_C [\ln(\text{hardness})] + b_C\} \text{ (CF)}$$